JUNE 10, 1974

Commerce Today

New UN Code May Affect U.S. Cargo Shipping

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FROM THE
SECRETARY

Avoiding 'An Illogical Posture'

While we are deeply occupied in problems and issues such as the state of the economy and world diplomacy, we must not invite shortfalls in other areas of vital national interest. One such area is the nurture of science and technology.

Science and technology form the basis of man's ability to cope with the needs of an increasingly complex society. Without science and technology, the practical demands of humanity go unanswered. Two examples of areas where research and development are required come to mind. We must develop a viable synthetic fuels industry. We must face the unresolved question of material shortages which threaten existing industries. But problems such as these continually challenge our society, and without our constant support, scientists and technologists can hardly be sought at the peak of a crisis and asked to produce answers overnight.

We tend to be crisis-oriented. Without a crisis, such as World War II, or a far-reaching commitment, such as the space program, we assign a lower priority to research and development than scientists—or the public—deserve. In fact, in recent years, it has been voguish to portray science and technology as dehumanizing. This tendency contrasts sharply with the progressive role of one of our most important fields of study.

The sudden impact of the oil embargo came like a cold shower shock. But we have to be grateful for being pointed in the right direction. Energy independence is essential, we are now discovering.

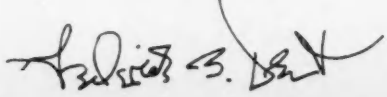
We have seen elsewhere what the marshalling of our research and development resources and skills can do. Putting man on the moon was one such project. Integral to that accomplishment was the will, funding, and organization to get the job done.

Similarly, the priority we give to science and technology will have a direct and corresponding impact on our supply of energy resources, on our economy, and on the quality of our lives. To downgrade scientific research and technological development is to decelerate the main engine that gives a dynamic, wealth-generating thrust to our society. This is to say that to be for social improvements, and against technology, is, to put it mildly, an illogical posture.

Our status internationally is also dependent upon maintaining our superiority in sophisticated technology. The contribution of the aerospace industry is just one example of the role of technology in our trade with other nations. Without billions of dollars in aerospace exports we would have had a deficit trade balance every year since 1969. In national security, too, the essential ingredient of our strength is the sophistication of our research and development, an element of our strength which is respected throughout the world.

The energy crisis demonstrated the interdependence of our national security and our capabilities in the development of new energy resources. The Arab oil embargo dramatized our relationship with the Middle East and our dependence upon foreign energy resources to maintain our position as world leader. Now that the embargo has ended, we should be more determined than ever to demonstrate our priorities in energy research and development and in striving to achieve the goals of Project Independence.

Two years ago, President Nixon delivered a message to Congress on the continuing importance of science and technology to national progress. It is timely to repeat his emphasis that ". . . the impact of new technology can do much to enrich the quality of our lives. The forces which threaten that quality will be growing at a dramatic pace in the years ahead. One of the great questions of our time is whether our capacity to deal with these forces will grow at a similar rate. The answer to that question lies in our scientific and technological progress."



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COVER: *A U.S. merchantman enters San Francisco Bay after passing beneath the Golden Gate Bridge. The United Nation's new Code on International Liner Conferences could introduce some wide-ranging changes into the activities of U.S. cargo ships. Story begins on Page 5.*

ECONOMIC
HIGHLIGHTS

Wholesale Prices Show Underlying Pressures; Indicate Likely Course Of Inflation In Future

Economic Highlights is prepared by Dr. Sidney L. Jones, Assistant Secretary of Commerce for Economic Affairs.

Wholesale price changes are closely watched for clues about the future pattern of consumer prices and as a measure of the underlying inflation pressures as reflected in agricultural and raw materials prices. But analysis of the Wholesale Price Index over the last few months results in more questions than answers. The explosive gains beginning a year ago have finally turned into a mixed sequence of monthly changes with both farm and industrial commodity prices moving irregularly.

While this uncertain pattern will probably continue for many months, a retrospective analysis one year from now will probably disclose moderate overall improvement in the total index despite volatile price changes in specific sectors. The probable difficulty of achieving this gradual moderation emphasizes the crucial importance of stable monetary and fiscal policies to create the necessary environment for improving the specific supply problems which are currently pushing up a great many wholesale prices.

Various explanations

As indicated in the first chart, wholesale prices increased at a relatively moderate pace for some time before an accelerating pattern started in late 1971 and continued upward for approximately one year before the extremely sharp increases began to occur. The initial surge of wholesale prices in late 1972 resulted from the remarkable increases of farm products, processed foods and feeds.

As indicated in Chart 2, that component of the total index experienced a sudden surge of price changes. There are various explanations for the unfavorable developments: adverse growing conditions in the United States; some significant crop failures abroad; apparent speculation in commodities by foreign buyers, particularly following the two dollar devaluations in the foreign exchange markets; and, the distorting effects of price controls which exacerbated several supply shortages. Improved agriculture production has apparently corrected these problems and seasonally adjusted price declines for farm products and processed foods and feeds occurred in March (off 2.1 percent) and April (down 3.0 percent). Erratic monthly price declines over the last several months have offset the unprecedented jump of 19.3 percent in the single month of August 1973 which marked the end of the price freeze initiated in June 1973. Nevertheless, by April 1974 this agricultural group of wholesale prices was still 14.7 percent above the 1973 level.

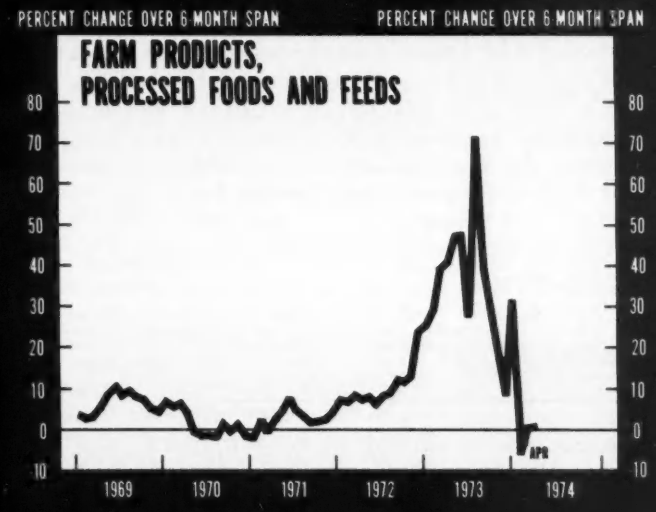
As agricultural wholesale prices moderated in recent months the crucial index of industrial commodities moved sharply upwards as indicated in Chart 3. Since last October these prices have risen at a rate of 1 percent or more each month, and the seasonally adjusted gains in March (2.9 percent) and April (2.3 percent) were particularly sharp. By April 1974 the wholesale price index of industrial commodities was 20.7 percent above the year-earlier level. A major part of this surge is accounted for by the fuels and related products and power sector which jumped 77.5 percent. Other industrial commodity price gains over the last 12 months ending in April include: textile products and apparel, 13.8 percent; chemicals and allied products, 22.8 percent; rubber and plastic products, 17.0 percent; lumber and wood products, 10.0 percent; pulp, paper and allied products, 20.5 percent; metals and metal products, 23.5 percent; machinery and equipment, 8.3 percent; furniture and household durables, 7.7 percent; and transportation equipment, 3.9 percent.

Changing patterns

Using a different classification system the increase in wholesale prices of consumer finished goods and producer finished goods is indicated in Charts 4 and 5. The accumulated price pressures from these two categories will affect future retail prices.

After many months of discouraging wholesale price index news some changing patterns are beginning to emerge. Prices of agricultural products appear to be stabilizing and the prospects for excellent crop harvests should contribute to this adjustment. Moderating world-wide demand for industrial commodities and the alleviation of some domestic shortages may affect their prices significantly. It is also probable that the energy sector will not record price gains in the coming months comparable to the experience of recent months. In short, the fundamentals appear to be improving.

Future progress in slowing the rate of price increases is likely to be difficult and gradual because of the accumulated pressures reflected in the various wholesale price measures. Businessmen must be unusually careful in avoiding inventory losses as the price adjustments occur in the coming months. But it is encouraging that the wholesale prices should be improving and that such changes will eventually influence retail prices.



ALL DATA SEASONALLY ADJUSTED AT ANNUAL RATES

Newsmemo

Prices for services, which have consistently led the price increases for commodities over the past 20 years, slipped by comparison in the first three months of 1973. The Consumer Price Index for services showed a 1.51 percent increase in that period, compared to 2.92 for commodities. The relative change is attributed primarily to fuel and food price boosts. But the lifting of price controls in some areas of the service industries--especially medical and hospital services--indicates that this deviation from well-established patterns may be short-lived.

Another cost of inflation is a higher bad debt loss for department stores. As food and fuel prices go up, customers lag with their payments on charge purchases. The trend intensified in the last quarter of 1973 and continued strong through April. Due to varying ways of reporting such losses a composite figure is not available. Some samples: Sears, total uncollectables of $45 million in 1973, up $3 million from 1972; Harvey's in Nashville, uncollectable rate up from .49 percent of charge sales in 1972 to .85 percent in 1973; May Co. of Los Angeles, bad debt losses of last quarter 1973 up 4 percent from comparable 1972 data.

Plusses and minuses today for U.S. exporters are concisely put in a new Chicago International Trade Club survey. On the plus side: greater world demand, new product introduction, better marketing, improved distributor networks, increased use of advertising and trade shows, stepped-up service facilities, wider travel for on-scene selling. Problem areas: materials shortages, mainly; also, stiffer worldwide competition, financing difficulties, tariff and non-tariff barriers, increased freight costs, changing world economies. Adding up, Chicago's traders see sizable gains this year over 1973.

That Brazil rates high with U.S. traders was fully confirmed at seminars in five cities last month. More than 700 sophisticated, action-oriented businessmen came to the conferences in Dallas, Los Angeles, Indianapolis, Chicago and Philadelphia. They got detailed answers to tough questions from panels of U.S. and Brazilian officials, bankers and Americans already doing business in Brazil. The Commerce Department co-sponsored the seminars with local business groups.

A Commerce Department Task Force is back from the Near East with the report that $40 billion in potential business now awaits exporters there. Under Secretary John K. Tabor has commented: "The Arab nations will have the wherewithal for large-scale investments in petroleum processing and other facilities both in developed and developing regions of the world. This is a plus for world progress and prosperity. In addition, these oil revenues signal the opening of a bountiful new market for American firms in the Near East." A detailed report by the Commerce Task Force is now being prepared for Commerce Today readers.

A 13 percent increase in consumer complaints in 1973 over 1972 is reported by the Better Business Bureau network. Though state and local agencies have stepped into the consumer picture in recent years, the Better Business Bureaus still get the bulk of the public's complaints against business. Consumers are irked most by (in the following order): mail order houses, auto dealers, home furnishing stores, miscellaneous retailers, miscellaneous servicers, home remodelers, direct sellers of magazines, department stores, appliance stores, auto repairmen, photo processors, TV repairmen.

Meanwhile, the furniture industry is setting up its own panel to resolve consumer problems. Following the lead of the appliance industry, which has had a consumer action panel for several years, the Southern Furniture Manufacturers Assn. has established such a body. It is composed of seven members from industry, retailing, educational and consumer groups. It is scheduling four meetings each year to discuss individual consumer complaint cases that have not been settled through retailers or manufacturers.

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UN Liner Conference Could Have Major World Maritime Impact

The recently-adopted UN Code of Conduct for Liner Conferences portends possible far-reaching changes, some good and some bad, in the operations of U.S. flag lines.

The United States voted against adoption of the measure, which was passed by a 72-7 vote, but "in any event the Code will almost certainly become effective and we may be subject to it almost as much as if we had ratified," says the Maritime Administration's Richard J. Gage.

The Code will become effective if ratified by 24 countries with 25 percent of the world's liner tonnage. There is no question but that 24 countries will ratify. It is also highly probable that the 25 percent of tonnage requirement will be met. Generally speaking, the effect of such a Convention is that it becomes the domestic law of the nations adhering to it. It will undoubtedly have additional effect as a sort of "law of nations" if widely adopted, although technically a state refusing to ratify is not bound by its provisions.

Cargo sharing, whereby specific percentages of the cargo carried between two nations are alloted to the ships of those nations and the rest is made available to the ships of third nations, is the most important innovation in the Code as finally adopted. It is chiefly a device for building up the merchant fleets of the developing nations, which dominated the Conference that produced the Code. It is also the chief reason why the United States voted against it.

Not mandatory

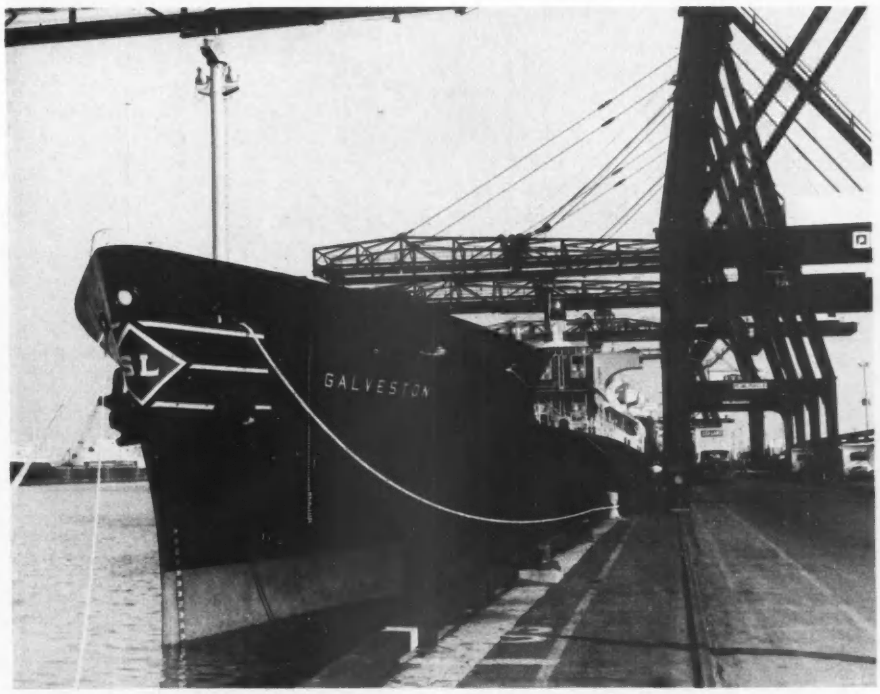
The Code adopts the 40-40-20 principle on cargo sharing (40 percent each for the merchant marines of the two countries involved in the shipments and 20 percent for the ships of third countries), but it is not mandatory. This means that if both parties in a two-way trade do not want cargo sharing it need not be implemented. But if one party does, then cargo sharing is, in effect, required.

Assuming that a state which is party to the Code decides for cargo sharing in its trade with a non-ratifying state (such as the United States, if we do not ratify) there will be an impasse requiring negotiation. Gage reports that experience over the past few years has shown that where this situation has arisen, the negotiations have resulted in cargo sharing. This result will be all the more likely when the other state has the Code to support its position.

Approximately two-thirds of U.S. liner trade is with developed countries, and cargo sharing initiatives are unlikely from them, although several of them voted for the Code. The impetus is likely to come from the developing nations. With several of these—Latin America, for instance—the United States already has cargo sharing through pooling agreements, and is in the process of starting cargo sharing with others, notably India. This leaves primarily Africa, South Asia, the Philippines and Korea. It is likely that some, but probably not all, of these countries will insist on cargo sharing in the future.

After a cargo sharing agreement is reached, the Code provides for a transition period of up to two years before its terms become mandatory.

It has become increasingly apparent that



SHARING THE CARGO—*The recently adopted UN Code on Liner Conferences adopts the controversial concept of cargo sharing as a means of building up the merchant fleets of the developing world. Above, a U.S. merchantman takes on cargo.*

SMOOTH SAILING—*Most U.S. trade is not expected to be affected by the new Code, which will probably only be applied to trade with some developing nations. The United States already has cargo sharing accords in effect with several nations.*

the Soviet Union has decided to enter liner shipping on a major scale in order to earn hard currency. Their recent passenger vessel activity is further evidence of this. The liner fleets of the world, American and foreign, may be very hard-pressed to compete against carriers not subject to our concept of profit and loss. Thus, the Code may fortuitously offer a device for restricting this competition without provocative legislation or regulations, Gage notes.

Conferences accepted

The Code also accepts the Conference system, which was not a foregone conclusion. In some ways it strengthens conferences, but in others it will cause them trouble. It accepts closed conferences and encourages rationalization. The whole world seems to be moving in that direction. At the Geneva conference the United States sought to require open conferences and was supported by only one other state, Switzerland. This illustrates the isolation of this country and its antitrust views in world shipping. Conferences will continue for the foreseeable future.

On the other hand, the Code is very tolerant of non-conference carriers, Gage says. Most Code provisions do not apply to them. They may be driven from some trades with rationalization and cargo sharing, but the non-regulation may give them advantages in other trades. One would expect them to be damaged in the trade of developing nations which seek to promote their own merchant fleets. This area must be regarded as unsettled; only experience will indicate the Code's effect on non-conference carriers and their effect upon the conferences, he says.

The developing countries' aversion to freight rate increases has been written into the Code. This reflects the fact that much of their experience has been in non-U.S. trades, where conferences often have acted arbitrarily. In effect, there must be 15 months between general rate increases. This is obviously onerous, but experience shows relatively few increases within such a time period, Gage notes. The shipping nations were prepared to accept a 12-month restriction. If world-wide inflation continues at its recent pace this could be more serious. Again assuming the situation where a given state ratifies the Code and the United States does not, it would appear that, as a practical matter, the Code state would be able to prevail in forestalling general rate increases for 15 months.

Individual rates are not subject to this proscription. On the other hand, the surcharge has been restricted and cannot be used to substitute for a general rate increase. Surcharges may be imposed, but only for traditional reasons, such as bunkers, port congestion, or currency revaluation.

Old accords valid

The Code does not restrict bilateral agreements that already exist or even those which might be negotiated in the future. So the U.S. agreement with the Soviet Union and our South American arrangements will not be affected. This would also permit resolution of the impasse-type situations which may result if the United States does not ratify the Code.

The Code does not set an international maritime commission to handle the regulation and disputes which will arise. It envisages articulate shipper interests which will balance conferences, be able to negotiate with them on an equal basis, and fight them if need be. In this regard it has rather adopted the European theory of shippers' councils.

Disputes are subject to mandatory conciliation under a somewhat cumbersome system. If both conference and shipper-group agree with the result of the conciliation, it would become effective. If not, the dispute would revert to the present national law of the individual states involved.

Enormously complex

The complexities of this can be enormous. For example, the trade route to West Africa could result in disputes going to a separate conciliation procedure with each country over the same issue. One possibility is that there will simply be few disputes which ever go beyond negotiation between the parties. This is the situation in most conference agreements, where there are elaborate arbitration provisions which are never invoked.

Most parties prefer to negotiate their differences in private and avoid the formality and lawyers included in public proceedings. Conciliation and implementation is an area of the Code whose success or failure cannot be foretold.

The situation is one with several unknowns in it. These can work to the favor of the U.S.-flag fleet as well as against it. Fear of the unknown should not dominate our thinking, in Gage's view. The lines operating to and from developed countries should see little or perhaps no change at all. Those operating in trades with the developing countries will probably have experiences something like our carriers had in the Latin American trade over the past decade, during which they learned a great deal about handling those problems.

Ferrous Shortages Continue To Plague Major U.S. Industries

Iron and steel castings are part of the ferrous shortages and Carl Sundberg, president of American Steel Foundries of Chicago, does not offer the hope that things will improve quickly since the industry is now operating at full capacity.

Urging that ways be found to smooth out the demand cycles by anticipating needs further in advance and by so doing minimize shortages, Sundberg said "we are a labor intensive industry with 50 percent of foundry costs in wages, thus making such labor considerations extremely important."

He pointed out that the ferrous foundry industry—with sales in excess of 18.6 million tons, or about $8.3 billion and total employment in excess of 235,000—is basic to the well being of practically every other major industry. Motor vehicles and trucks, railroads, industrial machinery, electrical machinery, construction and farm machinery, engines and turbines are a few of the foundries' dependents.

Sundberg was a panelist at the National Materials Shortages briefing in Chicago recently. A summary of panelists' statements reveals:

- A shortage which handicaps the foundries is virtually guaranteed to handicap many other major industries. Thus, there can be no minor shortages.
- The steel industry favors export controls on ferrous scrap, while the scrap industry argues that the consuming industries establish the markets and points to its problems with 30-day contracts and railroad gondola shortages.
- Nonferrous ore exporting countries will try to follow oil exporters' lead in enforcing a price hike, but do not enjoy the same position of strength that make oil-exporting countries unique.
- Reinforcing bars, a shortage item which created havoc in the construction industry last year, will be in adequate supply in the long term.

Noting that the basic inputs in running a ferrous foundry are iron and steel scrap, alloying materials, sand, resins, other expendables, and energy, Sundberg asserted "we too have shortages—and in all of these.

"Over 80 percent of ferrous castings originate from scrap metal," Sundberg said. "The demand forces arise from the coincidental emergence of three factors — increased use of the electric arc furnace, high worldwide demand, high domestic demand."

Major energy savers

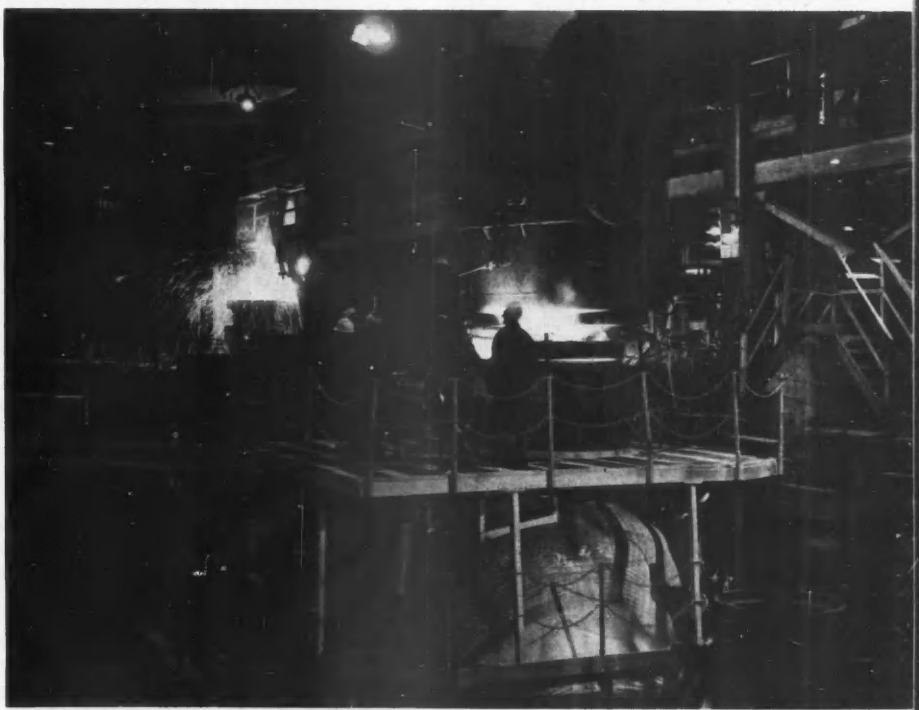
Calling the foundries "major energy savers," Sundberg added that to get a ton of castings from scrap takes only 30 percent of the energy needed to get the same casting from ore, a saving of 12.5 million BTU per ton. In addition, a ton of scrap requires, for its replacement 1½ tons of ore, one ton of coke and a half ton of limestone—all resources of finite size.

Since 92 percent of nickel, 95 percent of manganese and 100 percent of chromium used is imported today, U.S. foundries will continue to compete for their basic materials with foreign users and shortages will continue as long as demand remains at or near existing levels.

Most sand needs, Sundberg said, can be supplied from domestic sources. The major exception is chromite.

Foundries use resin as a sand binder. A shell mold foundry uses it exclusively and extensively and since most of the various resins are derived from petroleum, there's a problem.

Further, carbon electrodes and refractories for electric arc furnaces are in short supply and without them the foundries are



DIFFERENT POINTS OF VIEW—*Each industry reacts to the ferrous metals in its own way. The steel industry favors export controls on ferrous scrap, while the scrap industry says the consuming industries set the market. Above, a Bethlehem Steel mill at work.*

STILL ROLLING—*Despite supply shortages, the nation's steel mills continue to supply the needs of major industries. This is rolled steel at a Republic Steel plant.*

"absolutely dead in the water," Sundberg asserted.

Foundries use about 5.5 million BTU per ton and most of it has to be in the form of electricity for the furnaces. Roughly it is about 1600 kw hours per ton, and "when there are serious local power problems, we are the first to be curtailed," Sundberg continued.

"The foundry industry recognizes its importance and obligations as a basic supplier to the hard goods industry," he emphasized.

"It is difficult to foresee major increases in the foundry industry's physical plant capacity," he concluded, "until price-cost relationships permit a return adequate to encourage investment, the regulatory climate appears favorable to—or at least does not discourage—that investment; supplies of energy and materials can be had on an entirely free market basis; market demands for castings level out somewhat."

Other iron and steel panelists were David F. Laughlin, vice president, controller, secretary of Northwestern Steel and Wire Co., Sterling, Ill., who served as chairman, and the Rev. William T. Hogan, director of the Industrial Economics Research Institute, Fordham University.

Outcome unclear

Oil exporters' success in forcing acceptance of higher prices, no doubt, will encourage the exporters of ores and other industrial raw materials to undertake similar programs, but the outcome is not so clearcut.

This conclusion was drawn by Simon D. Strauss, executive vice president of American Smelting & Refining Co. of New York, a nonferrous metals panelist at the materials shortages briefing.

Oil exporters are in a unique position of strength, Strauss said, citing their "large financial reserves, the strong secular growth in consumption, oil's relative insulation from cyclical business trends, the absence of any substantial recycling of oil once it has been consumed, and the daily dependence of industries and individual consumers on oil to maintain essential functions."

He stated that exporters of major metals and ores find demand for their products is vitally affected by cyclical business trends. Withholding or reduction of production could seriously affect their employment levels, creating internal political difficulties. Recycling of secondary metal provides strong competition with primary metal in most of these commodities.

Noting that the effort at price control probably will be made by exporters in many of the metals, Strauss said "under certain conditions temporary success may well be achieved. But over the long term, efforts by exporting countries to exercise lasting price controls may prove self-defeating in terms of loss of markets, possible loss of capital invested in the control schemes, and over-stimulation of production from non-controlled sources."

Each commodity has its own distinctive situation, he pointed out. The major metallic commodities are iron ore for the steel industry, bauxite for the aluminum industry, copper, lead, zinc, tin and nickel.

World iron ore production is very widely scattered and an effective grouping of iron ore exporters would be difficult to organize, according to Strauss. Among the so-called Third World countries, the largest iron-ore miners are Brazil, Venezuela, Liberia, Chile and Peru. Their aggregate share of the world supply of iron ore is only about 13 percent.

"On the face of it bauxite appears to present better possibilities than iron ore for unified action by the governments of exporting countries to improve the return on their exports of this basic raw material," Strauss noted. Australia and Jamaica accounted for 40 percent of 1972 bauxite production and another 20 percent came from Guinea, Surinam, Guyana and the Dominican Republic.

Even in bauxite there are limitations, Strauss pointed out. Apart from Australia, the other principal bauxite exporters lack financial strength.

Still more significantly, Strauss said, the bauxite producers have to recognize that although bauxite is the highest grade aluminum-bearing raw material, alternate sources are available. A great deal of work has been done on aluminum-bearing clays in the United States.

Strauss added that the inflationary effect on production costs of higher oil prices, rising wages, and more expensive operating supplies certainly provides a background to stimulate the interest of bauxite exporting countries in recouping some of these added costs through higher prices.

Copper-producing group

Four major copper-producing countries—forming an organization known as CIPEC—account for about 37 percent of free world mine production of copper, Strauss stated. Their share of the international copper trade is much greater as their home consumption is small and virtually all their copper is exported.

The United States is not heavily dependent on the CIPEC countries. Mine production accounts for 90 percent of this country's primary copper requirements. Roughly 40 percent of U.S. copper imports come from the CIPEC countries, only four percent of the total requirement.

However, any CIPEC looking toward control of the copper market elsewhere will affect the market here. Experience during the repeated periods of copper shortage in the last 25 years has demonstrated conclusively that the U.S. market cannot be isolated from the world market, despite this country's relative self-sufficiency compared to industrial competitors in Europe and Japan.

Strauss said available data indicate that in 1972 the four CIPEC countries accounted for 18 percent of total "free world" copper concentrate exports; 75 percent of blister copper exports; and 54 percent of re-

fined copper exports. Their combined share of the export trade in copper was 52 percent.

"Should they undertake price maintenance at a time of weakening demand, this share of the world trade—although large—might not be large enough to insure success," Strauss asserted.

"Because of the importance of copper in the foreign exchange and the large share of total employment represented by the copper industry of all four CIPEC countries, they would find it difficult to restrict production or exports over any considerable period of time without active financial support," he added.

The nonferrous metal in which "free world" production is almost completely dominated by the developing nations, is tin, Strauss pointed out.

Of total "free world" tin production of about 200,000 metric tons a year, more than 80 percent is produced by six countries—Malaysia, Bolivia, Thailand, Indonesia, Zaire and Nigeria—all in the developing country category. The only developed country with a significant tin production is Australia, which now accounts for about 6 percent of free world supply.

World tin consumption has increased less than consumption of any other major metal, Strauss continued. In 1960, world tin consumption was 183,000 tons. In 1972, it was only 190,000, a gain of 4 percent over 12 years.

Substitution of aluminum and glass for tin-plated steel in the container industry has been an important factor but there also has been failure to expand consumption in other major lines, such as solder, brass and bronze.

Can't be separated

Production of lead and zinc is so largely interrelated, economic studies of these two metals usually encompass both. The bulk of the production is joint.

Mine output of lead and zinc is largely from industrialized countries. The U.S., Australia and Canada are the three largest producers of both. They account for about 55 percent of the "free world's" mine production of lead. Peru, Mexico, Yugoslavia and Morocco are substantial miners of lead. These four countries plus Zaire and Zambia are also significant miners of zinc. In the aggregate, however, they account for less than 25 percent of world output.

Despite its rank as the world's largest miner of lead and third largest miner of zinc, the U.S. depends on imports. It would therefore be affected by any move by lead and zinc exporting governments to undertake to control the market.

"To form an effective consortium of exporters always appears to be difficult even when the prospective members are well established in the field," Strauss concluded. "Establishing market shares is a necessary concomitant to such schemes. But the difficulties are compounded when there are newcomers breaking into the field—their production potentials and economic viability have not been ascertained in a way that will convince the older exporters.

"Hence, conditions do not appear ripe for an effort to create a nickel-export control scheme—and indeed there are no signs that such a move has been actively contemplated."

Russia is a major factor in the world platinum market—along with the Union of South Africa.

Other members of the non-ferrous metals panel were J. R. Anderson, president, Chicago Extruded Metals Co., Cicero, panel chairman, and Harold D. McAneny, director of marketing, The Aluminum Association.

A severe shortage of reinforcing bars on the domestic front became apparent mid-year 1973 and has grown progressively worse, Robert T. Stafford, executive vice president of the Concrete Reinforcing Steel Institute of Chicago, said.

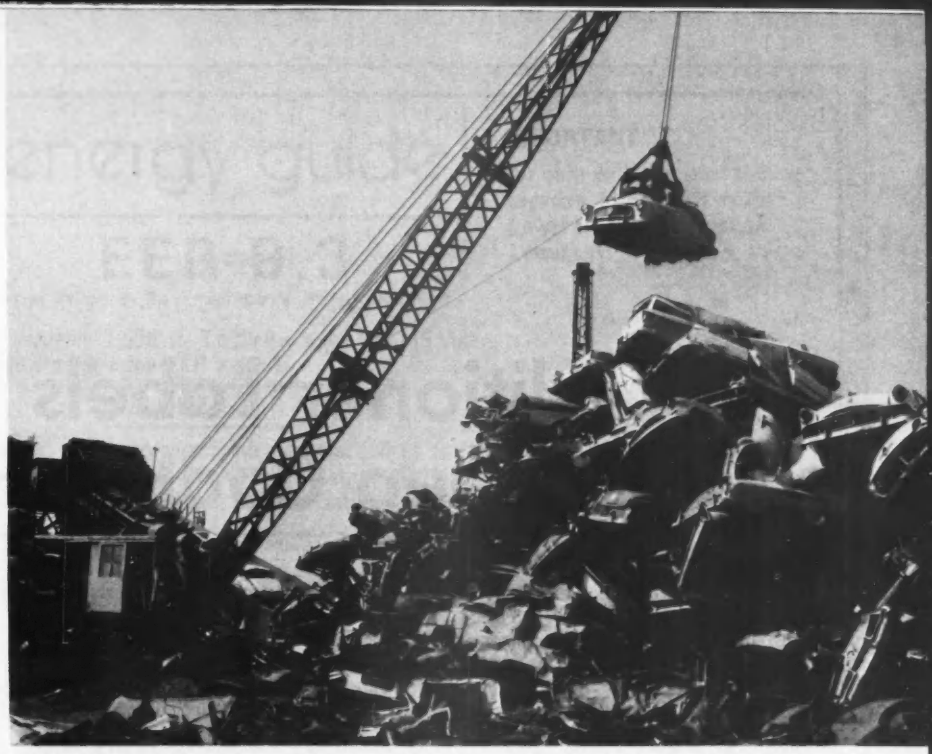
"The shortage has brought extensive and irreparable damage in the form of lost wages and delay costs to the construction industry and to the U.S. economy as a whole," he stated.

The situation has been aggravated by world-wide boom in steel demand, together with U.S. steel mill capacity operations over an extended period of time, Stafford added, "yet, without abortive attempts to manage the economy through ill-conceived price controls, the basic law of supply and demand would have been sufficiently self-correcting and the shortage of reinforcing bars would be virtually nonexistent today."

With world demand for steel destined to continue at a high rate for some years to come, pressures will be exerted on domestic scrap supplies and scrap costs and prices for a long time ahead, he concluded.

Long term, reinforcing bars will be in adequate supply if the steel industry is not plagued with production-inhibiting price controls, Stafford continued. The prices of reinforcing bars will never revert to the cheap level prevailing a year or so ago. How reasonable the prices become for reinforcing bars depends very much on how well the government is able to cope with the exodus of steel scrap from the shores of the United States.

Short term, reinforcing bar supplies should improve toward the latter part of this year. Disbanding of the Cost of Living Council should provide some profit incentive—enough to cause certain mills to roll more reinforcing bars.



NEW LIFE—*Scrap metal supplies more than 80 percent of the input for ferrous castings. These junked cars will reenter the economic mainstream in the near future.*

This is the third and concluding article in the series covering the supply situation for the nation's essential raw materials. This report covers ferrous and nonferrous metals. Earlier articles in the series appearing in the April 29 and May 27 issues of Commerce Today *covered textiles, forest products, paper and allied products, plastics and organic and inorganic chemicals.*

Air Conditioner Labels Show How To Keep Coolest For Least $

Americans have always taken pride in the extensive array of appliances which have been developed to make life comfortable. In no other nation is there such widespread distribution of consumer items as in America—from self-cleaning ovens to self-defrosting refrigerators.

One reason for the phenomenal growth in the development of appliances has been a ready supply of cheap, abundant energy. Energy resources contributed to economic and technological growth in the United States, reflected in increasing affluence and increasing consumption.

The era of unlimited energy consumption is over, the country is now discovering. No longer do we have the right to consume energy indiscriminately. First of all, supplies are limited. And secondly, supplies are expensive.

Consumers are becoming more and more aware of this, and they will soon be able to make intelligent comparisons of the energy efficiency of major appliances, starting with room air conditioners—thanks to a new program.

Commerce's National Bureau of Standards has designed a label for room air conditioners containing data related to energy usage. Attached to each unit will be labels showing how each stacks up in energy efficiency—and hence, cost of operation. This will be the first case where consumers will be able to see on one label information showing what is available and how the model in question compares.

The search for a coordinated program to label room air conditioners and other appliances goes back to last spring. In his April, 1973, Energy Message, President Nixon directed the Secretary of Commerce, working with the Council on Environmental Quality and the Environmental Protection Agency, to develop a voluntary system of labeling for all major household appliances. Two months later the *Federal Register* carried an announcement of the proposed Commerce program.

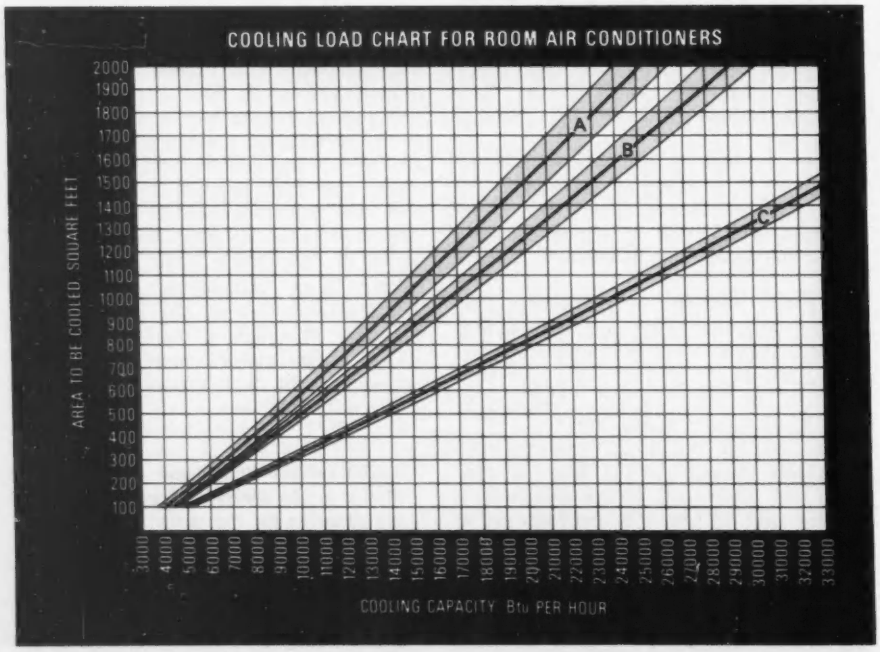
Room air conditioners were chosen as the first appliance in the voluntary labeling program. The Department of Commerce label prototype has gone out already to manufacturers across the nation. When placed on units, they will help consumers make purchases which will not only save them money in utility bills, but save precious resources as well.

The need for an energy efficiency comparison is obvious. More than 50 manufacturers of room air conditioners turn out hundreds of models each year. The average consumer often does not realize that different air conditioners that produce the same cooling use different amounts of energy.

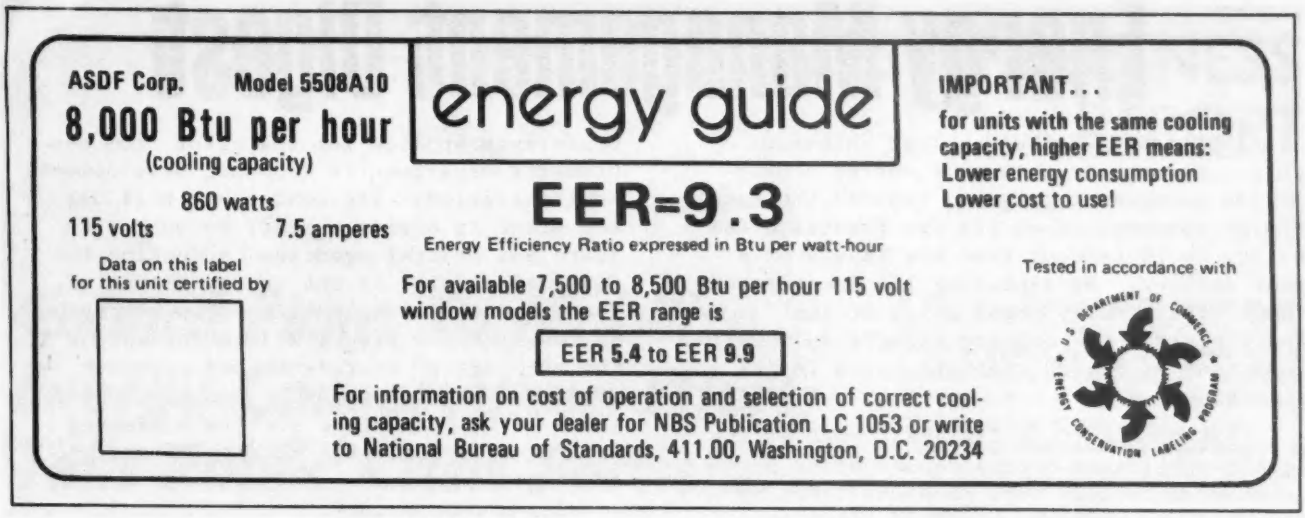
Judging the ratio of cooling capacity to energy used by looking at the outside of the unit is as difficult as judging an automobile's miles-per-gallon by inspecting the bucket seats.

Originally, researchers at the Bureau of Standards considered labels showing the cost of operation rather than this energy efficiency ratio (EER). But because of the variables which contribute to the cost of running a room air conditioner this route wasn't taken. For instance, electricity rates are enormously varied between different regions—even within single regions. Climatic conditions put more demand on room units in one region than in others. Building construction has a great impact on the number of hours an air conditioner is used, and therefore on its cost of operation.

Most important, different homeowners use their air conditioners differently. Some cool part of the house rather than all, or choose a higher temperature setting than others; some operate their units for part of the day only while others cool 24 hours a day. These variables make it difficult, if not impossible, to estimate a reasonably accurate annual



COOLING KEY—*Cooling load chart gives the required cooling capacity for room with (A) occupied room above; (B) insulated ceiling and unoccupied attic above; (C) uninsulated ceiling and unoccupied attic above. An NBS booklet contains further details.*


ASDF Corp. Model 5508A10
8,000 Btu per hour
(cooling capacity)
860 watts
115 volts 7.5 amperes
Data on this label for this unit certified by
energy guide
EER=9.3
Energy Efficiency Ratio expressed in Btu per watt-hour
For available 7,500 to 8,500 Btu per hour 115 volt window models the EER range is
EER 5.4 to EER 9.9
For information on cost of operation and selection of correct cooling capacity, ask your dealer for NBS Publication LC 1053 or write to National Bureau of Standards, 411.00, Washington, D.C. 20234
IMPORTANT...
for units with the same cooling capacity, higher EER means:
Lower energy consumption
Lower cost to use!
Tested in accordance with
U.S. DEPARTMENT OF COMMERCE
ENERGY CONSERVATION LABELING PROGRAM

LOOK FOR THIS—*Commerce label should help U.S. consumers in buying room air conditioners. Labels for other products are planned.*

cost of operation and place it on a single label which can be used in every area of the country by all sorts of families.

So a different option was taken.

Room air conditioners are manufactured with a variety of cooling capacities. Just as larger cars in general use more gasoline per mile but accommodate more people, so larger room air conditioners typically consume more energy per hour but are able to cool more room space. What NBS has done is compare the energy efficiency ratio (EER) of all models within a certain cooling capacity range.

An air conditioner converts hot, moist air into cool, dry air. It is designed to cope with hot, humid air of specific dimensions: some are designed for 12′ x 12′ rooms, others for large living-dining-kitchen areas. The air conditioner's cooling capacity is expressed in British Thermal Units per hour (BTU/hour).

The BTU rating indicates the amount of heat an air conditioner will remove from the air each hour under specified test conditions. One BTU represents about the amount of heat produced by the burning of a wooden kitchen match to ashes. In the sample label on this page, the appliance would remove approximately 8,000 BTU of heat from a room each hour.

The first thing to decide when buying a room air conditioner then, is what cooling capacity is required. The retailer can help in this regard, or the purchaser can figure it by following the detailed instructions in the NBS pamphlet, "Energy Efficiency in Room Air Conditioners." If local retailers haven't stocked the pamphlet yet, individuals may obtain a free copy by writing to Consumer Information, Pueblo, Colo. 81009. This pamphlet explains how to compute cooling needs, estimating the effect of variables such as insulation and shade, climatic conditions, and other factors.

After deciding upon a certain size of BTU/hour, the buyer should then look for the unit with the highest EER. The Commerce Department label tells what is available in that size range from other manufacturers. It is impossible for a consumer to measure the EER of an air conditioner as simply as he measures the miles-per-gallon used by his car. That's why it's so important that someone with laboratory facilities label the air conditioner.

The largest figures on the label state the EER of the appliance. The EER is a measure of the amount of cooling a room air conditioner can do relative to the amount of electricity it uses. The EER is determined by dividing the BTU per hour rating of a room air conditioner by the watts (power) it uses. In the sample label, 8,000 BTU divided by 860 watts gives an EER rating of 9.3. The higher the EER number, the more energy-efficient is the unit.

The two EER figures enclosed in the horizontal box two-thirds of the way down from the top of the label indicate the EER range of all appliances with about the same cooling capacity. In this case, room air conditioners with 8,000 BTU capacity have EERs that run from the least efficient ratio of 5.4 to the most efficient ratio of 9.9. In the sample label, the appliance has been given a 9.3 EER rating, near the top in efficiency for all 8,000-BTU room air conditioners on the market.

Estimating operating costs

The NBS pamphlet contains a table showing the typical number of hours room air conditioners are used according to geographical location. The consumer can multiply the number of operating hours by the local electricity rates, and multiply the answer by the watts divided by 1,000. For example, for an area having a climate similar to that of Dallas, Tex., the table indicates that an average user operates a room air conditioner about 1,400 hours per season. If the electric rate is three cents per kilowatt-hour, and the watts the room air conditioner uses (shown on the label) is 860, the estimated cost of operation will be:

$$\text{Cost} = \$.03 \times 1{,}400 \times \frac{860}{1000} = \$36.12$$

Retailers can be helpful in providing information on local electric rates.

An air conditioner with a higher, rather than a lower, EER, that has the same watt and BTU rating on its label will cool the room for less money.

Significant impact

As mentioned earlier, the way an air conditioner is used will have a significant impact on utility bills. More and more homeowners are setting their air conditioner thermostats higher than during pre-energy shortage days. Raised thermostats mean lower costs!

Americans can thank last winter's energy crisis for several things. One of them is an increased awareness of just how much our supply of energy is worth. Faced with extreme shortages, Americans drove their cars less. They dialed down heating thermostats. They all learned that energy resources are precious, and they all learned to do with less. They must continue to practice the conservation habits they learned last winter.

The immediate impact of conservation will have a great deal to do with the U.S. ability to weather future energy shortages. Conservation will continue to be an essential ingredient in the nation's striving for energy independence—as important a factor as research and development to provide new energy sources.

Consumers must continue to stay abreast of all means of conserving energy. The labels on air conditioners are there to help. When purchasing an air conditioner, look for the Commerce Dept. label—and use it. It's like money in the bank. And the country will gain from energy saved.

Energy Management Digest

TODD'S ENERGY SQUAD...Todd Shipyards Corp., through an intensive energy conservation management program, reduced the total energy consumption at its San Francisco facility by 18 percent from the levels of a year earlier. By replacing 134 incandescent lamps with mercury vapor units at its Seattle yard, the company expects an annual reduction of 87,700 kilowatt hours in its electric load.

SIZE NO BAR TO INITIATIVE...Most of the highly-publicized energy conservation programs seem to deal with measures taken by larger firms, but the little fellows are pitching in just as vigorously. The Behrenberg Glass Co., a small Pennsylvania manufacturer whose payroll fluctuates between 27 and 41 people, determined to curtail the natural gas usage of their glass bending furnaces. After consultation with the gas company, Behrenberg replaced the fire brick in one of its furnaces with a newly-developed insulating material, at a cost of $1,800. The action reduced heat-up time for the furnace by two hours and brought a 20 percent saving in daily use of natural gas, as well as increasing the production rate and reducing the process cost per unit. The gas savings alone are expected to pay for the cost of the alteration in less than two years. Additionally, the reduced heating loss has made for a better working atmosphere. A second, larger furnace has been scheduled for conversion.

WASTE GOT, WANT NOT...A new furniture manufacturing plant of Bernhardt Industries of Troutman, N.C., has made a significant advance in energy conservation and pollution control by establishing a totally integrated power system for its operation. This controlled environmental system, a first in the furniture industry, is primarily fueled through wood wastes generated in the plant's operations. Ordinarily, a plant of its size would require an annual energy input of 50 billion BTU's; however, its use of energy reclaimed from waste reduces the Bernhardt factory's energy requirement to about 16 billion BTU's annually.

STATES TO COORDINATE...Secretary of Commerce Frederick B. Dent has announced a $97,337 grant to help individual states coordinate research on the economic impact of energy problems. The National Governor's Conference applied for the grant from the Commerce Department's Economic Development Administration. The conference will use the grant to employ a staff to work with state and federal agencies conducting individual studies of the energy situation. The program will help to avoid duplication of research and assure wide distribution of the findings of energy-related economic studies. The program will include conferences of various state officials seeking ways to reduce adverse effects of energy shortages.

BUY THE REAL THING...The Federal Energy Office urges U.S. consumers to buy products made of natural materials rather than synthetics. Garments made from natural wool or cotton require less energy than those made from synthetics. Large amounts of energy are consumed in the production of modern man-made materials. If they do buy synthetic garments, consumers are urged to choose those that require little or no ironing, to conserve the energy costs of upkeep.

GREEN THUMBS SAVE ENERGY...The nation's gardeners can conserve energy while beautifying their homes by planting deciduous trees on the south and west sides of the house. The leaves give protective shade against the summer sun, while the bare branches admit the maximum amount of heat-bearing sunlight during the winter months. Gardeners should also consider using hand lawnmowers, pruners and clippers....they're non-polluting, more operationally reliable, and provide better exercise.

TOURISM FIRMS HARD-HIT...U.S. Small Business Administrator Thomas S. Kleppe has indicated concern over the severe effect of the energy shortage on the tourism industry. "A large portion of the industry is comprised of small businesses struggling to survive, and in some cases, failing to survive", Kleppe says, "including roadside restaurants, hotels, motels, gas stations, trailer parks, ski lodges, travel bureaus, and auto rental agencies." Loan applications from small firms adversely affected by energy shortages are receiving priority treatment from SBA, and through the Agency's newly established Office of Energy and Materials "we are educating ourselves more thoroughly so that we may better inform our constituency on how to cope with shortages," Kleppe points out.

Council Plans To Mobilize Energy Conservation Effort; Tells Public Crisis Persists

The drastic decline in public awareness of the energy crisis since the long lines at the gasoline pumps last winter, and measures to mobilize the public and industry for long-term energy conservation, were pointed up at a recent meeting of the National Industrial Energy Conservation Council.

Another high point of the meeting was a recital of the energy conservation achievements of many companies, and the plans that are being made for additional energy savings.

In outlining "New Federal Initiatives" intended to guide and assist the energy conservation program, Secretary of Commerce Frederick B. Dent announced the following actions:

- Instructions to the Commerce Department staff "to plan and implement a program to evaluate the business community's response to our call for energy conservation."
- To help business leaders get the energy conservation message to all citizens, including employees and customers, he has authorized the Department staff "to contract with a public relations firm to design a model communication program for use by business firms."
- Work is well under way at the National Bureau of Standards to provide a comprehensive "how-to-do-it" manual or kit on energy conservation. The kit would provide businessmen, particularly intermediate size and smaller businessmen, "with the specific guidance and technical help that will make energy conservation possible in their operations."

The Secretary pointed out that, at the last meeting of the Council in February, "enthusiasm and commitment to energy conservation were high throughout the country." But he added that since that time many things had happened, the most significant of which was the lifting of the oil embargo by the Arab producing nations.

"This action was, of course, most welcome," Dent said. "With the embargo ended, many of the manifestations of the crisis which we faced last winter are also gone—long lines at the gasoline pumps and potential shortages of heating oil are now dim memories to many people. But these changes for the better have caused many Americans to lose sight of the fact that America's energy problem is a long-term one."

He warned against complacency on the part both of the public and industry, and said the nation must conserve energy and reduce the rate of increase in energy consumption.

Reports were presented by the following industry leaders at the Council meeting: C. B. Branch, President of the Dow Chemical Company, Inc., Chairman of the Sub-Council on Technology; Hershner Cross, Vice President of General Electric Company, for the Sub-Council on Product Efficiency; Robert Johnson, Vice President of Bethlehem Steel Corporation, for the Sub-Council on Motivation; and W. W. Boeschenstein, President and Chief Executive Officer, Owens-Corning Fiberglas, Chairman of the Sub-Council on Public Awareness.

Forgetting fast

In a report on public awareness, Boeschenstein recalled how quickly the nation seemed to forget "one of the strongest threats to our comfortable lifestyles." Only a few months ago, he pointed out, the energy crisis was discussed everywhere by everybody, at parties, office gatherings, or family dinners. He recalled the energy conservation slogans that were brandished about on every hand.

"But those times of social awareness seem to be over," he said. "We are becoming less concerned about the seriousness of the shortage and our efforts to conserve energy.

"This can be seen in the difference in opinion towards the crisis in just one year. In one poll conducted by the Eagleton Institute of Rutgers University in February, 1973, 55 percent of those polled rated the crisis as one of the most important issues of the day. The percentage today is only 16.

"In a similar survey conducted by the Opinion Research Corporation, 76 percent of those polled in 1974 believe the energy crisis is merely contrived.

"The fact that we don't have to line up for gasoline any longer doesn't mean the problem is over. We are just now finding solutions to the problem.

"The energy problem we face today stems from an incredible growth in demand compounded by difficulties in producing acceptable fuels. The United States has been using power faster than it has been producing fuel for that power. The difference must be made up by buying from producers in other countries. Thus, we will continue to face the problems that arise from importing fuel: potential shortages and high prices."

Boeschenstein recalled that U.S. energy consumption jumped from 16 million to 32 million barrels a day between 1950 and 1970. He said that at the present growth rate it could reach 64 million barrels a day by the late 1980s.

With U.S. companies using nearly 70 percent of all energy consumed in the nation, he said, industry conservation programs could have a significant impact on the general willingness to save energy. Many companies, he added, are reporting 20 to 30 percent energy savings by practicing good energy management.

Boeschenstein outlined four areas of energy management:

► Management must make a solid commitment to energy conservation. At Owens-Corning Fiberglas Corporation, he said, all manufacturing plants are forming energy conservation committees whose primary responsibility is to tour the plant and not only eliminate energy waste situations but make sure that there is general awareness of energy use.

► All forms of company energy use must be audited. He pointed out that at the Kansas City plant, for example, an audit to test the need for certain water cooling lines resulted in a saving of 432,000 gallons of water a day.

► Energy conservation goals must be set and action programs developed to meet them. Richard Grant, Vice President of Construction Materials Manufacturing of the Construction Group, emphasized that energy conservation means more than fixing leaky faucets or turning off unneeded lights, that

it "means designing energy conservation into the manufacturing process." An example cited was the low energy forming process recently installed at the Waxahachie plant.

► An energy efficiency campaign for employees should be initiated.

Secretary Dent, in his remarks to the Council, emphasized that the nation must "face up to the necessity of an energy conservation ethic."

He recalled that in the first four months of 1974 the U.S. imported 676 million barrels of energy as compared with 715 million barrels in the comparable period of 1973, a decline of 39 million barrels.

However, he said, the smaller quantity imported in the 1974 period cost $6.8 billion as compared with $2 billion in the 1973 period, an increase of 340 percent.

The price increase, he added, had a strong impact on the cost of operating business and the nation's economy, the cost of products and on the international balance of payments situation.

In April, he said, the U.S. for the first time this year imported more energy than in a comparable period last year. The increase was 27 million barrels to 189,150,000 barrels. But the value went up 376 percent.

"As we look to the months ahead," he said, "there is a possibility that some of these costs will come down, but perhaps not as significantly as we would wish."

Seeks voluntary answer

Pointing out that some individuals would like to resort to legislation in Congress to attack the energy conservation problem, Dent stressed the necessity of making Congress aware of the strength of the commitment to solve the problem by voluntary means in order to preserve the element of versatility in meeting the challenge.

With reference to the effort to achieve "Project Independence," in which the U.S. would be independent of foreign energy sources, Dent explained that the Department of the Interior in 1973 executed oil leases on the Continental Shelf covering 1.5 million acres, and that it was shooting for 2.5 million acres in 1974.

Recalling that the U.S. on a normal basis has been recently importing 6.5 million barrels of energy daily, Dent said the effort is through oil from the Continental Shelf, Alaska, and other sources to increase the energy supply by five million barrels a day, although he pointed out that with normal economic growth the present imports would increase. But he said "Project Independence" as outlined by President Nixon is a valid goal.

Dent cited a number of examples of energy conservation by companies, such as the following:

The Lockheed Aircraft Corporation in California saved enough energy during the fourth quarter of 1973 as compared to 1972 to provide power for a residential community of approximately 50,000 people. Its 1974 goal is to double the 1973 savings. Dent said he was sure this contribution was duplicated elsewhere.

At the Houston headquarters, Tenneco Inc. cut natural gas consumption by more than 30 percent. J. I. Case Company, a Tenneco subsidiary, reduced the consumption of all fuels significantly during December and January. The savings ranged from 11 percent for natural gas to more than 52 percent for fuel oil.

J. C. Penney Corporation cut energy consumption in its stores by more than 26 percent below historical usage, and its target for 1974 calls for further reductions.

Overall, Dent said, companies that have made a strong commitment to the energy management concept are targeting savings of five to 15 percent in energy consumption per unit of output over the next two years. This might go as high as 20 percent over a longer period as people are able to realize savings and make modifications in machinery and processes.

Branch, in the report for the Sub-Council on Technology, listed a number of high points in energy conservation achievement:

All the Sub-Council member firms had established energy management and reporting systems.

Pittsburgh Plate Glass estimated that on one large tanker it would be able to save 500,000 gallons of fuel oil yearly by slowing the tanker speed when shipping schedules permitted. A 20 percent reduction in normal speed reduced the tanker fuel consumption by 50 percent.

Chevron Shipping had assigned six of the company's most experienced seagoing engineers as energy conservation superintending engineers. They are now riding ships to carry the energy conservation program to both the deck and engineering departments throughout the fleet. They expect to save 11 million gallons of fuel in 1974 by a variety of techniques. All waste from cleaning the ship's tanks are now recovered on board and returned to the oil tanks.

Alcoa has made unusual strides in reducing the amount of energy required to produce and fabricate aluminum. At the end of World War II, it took 12 kilowatt hours of energy to produce a pound of aluminum. The average today is eight, and a new process recently announced is estimated to cut the figure to 4.5, a drop since the end of World War II by almost two-thirds. In fabricating aluminum at Alcoa a reduction in energy use of 33 percent has been achieved, enough to supply the total energy needs of 44,000 Americans.

A reduction of 33 percent in electrical energy use by the Boeing Company has been accompanied by a cut of approximately 17 percent in fuel oil consumption.

Over the last three years, the energy conservation efforts of Lone Star Industries, Inc., have saved 2.9 trillion BTUs per year, equivalent to 19.6 million gallons of No. 6 fuel oil. In one cement plant in Texas, the installation of a pre-heater system, using waste heat reduced the fuel consumption at the plant by 27 percent, the equivalent of five million gallons of fuel oil per year.

Turning to his own company, Branch said energy conservation has been a major objective at Dow Chemical for the last five years. Dow, he said, has aggressively warned other people of the impending energy problems, and over the last two and one-half years has communicated with more than 400 companies on the energy situation. In addition, it has distributed more than 3,000 do-it-yourself energy conservation kits.

The company, Branch said, is now working on two projects for the National Science Foundation. The first involves a study on the feasibility of combining industrial and utility plants to achieve better capital and energy efficiencies. The second is a study on the feasibility of switching from oil to gas to alternative energy sources by the years 1985 and 2000.

Possible Cancer Linkage Clouds Outlook For PVC

Recent developments regarding the relationship of vinyl chloride monomer (VCM) and angiosarcoma (liver cancer) have clouded the future of VCM, the manufacture of polyvinyl chloride (PVC) products, and the safe use of many products made of PVC which may contain residual VCM.

Vinyl chloride monomer is also used as a propellant in aerosol, and the Food and Drug Administration has banned its use for this purpose. However, substitute products are available for aerosol use. Polyvinyl chloride (PVC) is used to manufacture many common products, including electric wire, floor tiles, furniture and automotive upholstery, textile coatings, film and sheet including packaging, pipe and tubing, bottles, phonograph records, footwear, medical sundries, and others.

Many of these products have been and can be made from other materials, such as other plastics, rubber, metal and wood. However, most of these substitute materials are in short supply and would not be available to replace PVC resin. Physical and chemical properties of replacements might not be satisfactory for many uses.

If PVC or PVC with residual VMC is found to be a health hazard, it could have wide repercussions throughout the economy. In 1973, production of PVC amounted to 4.6 billion pounds valued at over $600 million. However, the value added in downstream product manufacture was much higher and the consequences in economic terms such as employment and small business failures could be severe.

U.S., Mexico Join Forces To Attract World's Tourists

The United States and Mexico have undertaken a joint tourism project designed to bring international tourists to both nations.

Under the agreement, the United States Travel Service and the Mexican Tourism Council are sponsoring and jointly financing a project under which *Viajes Melia* (Melia Tours—a Spanish tour wholesaler) will market a tour program that highlights the tourism attractions of both nations. Tourists buying any one of the itineraries offered in the program will spend an equal amount of time in each nation.

The program will initially be marketed in Spain, France, Germany and the United Kingdom, with possible extension to other countries later.

Assistant Secretary of Commerce for Tourism C. Langhorne Washburn called the agreement a historic first, and predicted it would push international visitor arrivals to this country above the 20 million mark during the 1976 Bicentennial Year.

Washburn pointed out that every 20,000 international tourists to the United States create one job in the U.S. economy. In 1973, international tourism supported over 270,000 jobs.

"Our goal is to try to bridge the oceans that separate both Mexico and the United States from the international travel market by putting a new tour on the shelves of travel agents around the world . . . a tour that will increase the tourism drawing power of the Americas by offering two countries instead of one," Washburn said.

This joint USTS-Mexican Tourism Council project, Washburn added, was only the first step in increasing the tourism cooperation between the United States and its neighbors.

North American Ports To Spend $1.4 Billion

North American ports will spend a total of $1.4 billion for new and improved facilities through 1977, according to a Maritime Administration survey.

The survey points out that, since 1946, capital expenditures exceeding $3.8 billion have been made by ports located in the United States, Canada and Puerto Rico.

Based on answers by 127 ports to a questionnaire sent to a total of 152, copies of the survey are being sent to port officials as an aid to future planning.

According to the report, ports in the continental U.S. will spend $1,484,450,440 between 1973 and 1977. Projected expenditures by Alaska, Hawaii and Puerto Rico are $35,504,000. Canada plans improvements totaling $220,504,000.

Some 40 percent of port investments in the 1966-1972 period were shown to be in the area of sophisticated terminal facilities, such as for advanced design general cargo-container, carriers, roll-on/roll-off vanships and barge carriers.

The survey reports that while funds earmarked for these facilities will continue to grow, a large part of future allocations will go to dry and liquid handling terminals.

Since the information was gathered by port jurisdictions on the local levels, not all private investment in port development is included. The dollar totals compiled in this survey include both public and private, but the amount of private monies probably is considerably less than actual, while the public port figures are reasonably definitive.

The 35-page "North American Port Development Expenditure Survey" is available for 85 cents from the Superintendents of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

Black-Owned Land Could Help Fund Minority Projects

Rural land owned by blacks in 14 Southern states probably constitutes the South's largest equity resources now under minority control.

Data developed under a research grant authorized by Commerce's Office of Minority Business Enterprise indicate that blacks in 14 states held more than 5.7 million acres in farm land valued at more than $750 million in 1969. More than half was in Alabama, Mississippi and the Carolinas.

The figures were assembled from 1969 Census of Agriculture data by Duke University Prof. Lester M. Salamon.

The share of black ownership of Southern farm land dropped sharply in the 15 years prior to 1969, according to the data. In the area covered, the 1954 total of more than 175,000 black farm owners dropped to less than 67,000, and acreage owned by blacks fell from 10.6 million acres to 5.7 million.

"Farm owners are rural entrepreneurs," noted OMBE Director Alex Armendaris. "Any effective strategy for minority economic development must recognize this resource of knowledgeability, and these holdings, as a potential equity base.

"Lack of capital in the hands of minority group members has been a persistent barrier to minority business development," the OMBE Director pointed out. "If minorities can utilize land as collateral to leverage capital for promising minority ventures, significant progress can be made.

"We hope some of the blacks who are leaving farms will ultimately become successful entrepreneurs," said Armendaris. "Some of the most successful minority business leaders come from rural backgrounds. Equally significant is the opportunity for those who remain in rural areas."

Beachcombers Beware!

Warning: The taking of some marine mammals, dead or alive, without a permit is an illegal act that can subject the taker or possessor to a fine, an arrest, or both.

The protected species are porpoises, seals, sea lions, whales, polar bears, sea otters, manatees, and walruses. Under the provisions of the Marine Mammal Protection Act of 1972 and related regulations, none can be taken without a scientific research permit or a public display permit.

The prohibition has been restated by Commerce's National Oceanic and Atmospheric Administration because of the recent increase in numbers of marine mammals salvaged for their skins by people who found them on U.S. beaches soon after death occurred. The agency's National Marine Fisheries Service administers and enforces the Act as it applies to sea lions, seals, porpoises, and whales. The other mammals are the responsibility of the Department of the Interior.

Seals and sea lions are the most commonly found species. In each instance the finder, even though unaware of wrongdoing, is guilty of a violation of the law if in possession of a marine mammal. The correct procedure is to leave the carcass where it is and inform state or local enforcement authorities or the local conservation department.

The ban against retention does not apply to bones, teeth, or ivory of marine mammals found on certain shorelands, provided such items are registered with agents of either NOAA's National Marine Fisheries Service or Interior's Bureau of Sport Fisheries and Wildlife within 30 days of collection.

To date, but only as temporary measure, a small number of law violators have been punished only to the extent of being forced to relinquish marine mammal pelts when state authorities found them to be in illegal possession. From now on a stricter application of the law will prevail in such situations. A violator can be fined as much as $10,000 per violation.

Great Number, Complexity Of Products Requires Unified Attack On Mechanical Flaws

As technology expands, and the public demands more and better products, pressure increases for prevention of mechanical failures and for greater safety in the tools common to the household and to industry.

Recognition of this growing pressure, and of the need to take action to meet it, was the basic purpose of a recent symposium on on mechanical failures held at Commerce's National Bureau of Standards in Gaithersburg, Maryland.

Billed as the twentieth meeting of the Mechanical Failures Prevention Group, the three-day symposium was sponsored by the Bureau and seven other federal agencies. Speakers talked on a broad series of subjects ranging from brittle fracture to nuclear power plant safety.

Dr. Richard W. Roberts, Director of the Bureau of Standards, emphasized the need for "a coherent materials policy."

"If you look hard enough," he said, you'll find that there is a national policy on materials and mechanical failure, but it is a diffuse, uncoordinated, stop-gap policy that lacks a real focus. . . .

"Public safety, new materials, productivity, materials shortages, pollution, are all part of a problem that affects all Americans. There are obvious mechanical failure components in each of these categories, and failure prevention should be an integral part of policy formulation.

"With longer-lasting products there will be reduced needs for raw materials, less energy used in the production and transportation of goods, and less pollution at both the production and disposal ends of the cycle," he noted.

"We need both policy and technology that leads to increased recycling and reuse. We need a better understanding of the relationship between flaws and failure. We need research into the characterization of materials, so that they can be better matched to service requirements. And finally there should be a clear definition of liability when the rare but unavoidable failures do occur."

Dr. Roberts pointed out that use of materials is increasing, and that there is also "a constant demand for new and better materials.

"For example," he added, "the search for energy alternatives is creating the need for high temperature, high strength ceramics for use in higher efficiency turbine generators. Engineering data on such new materials is needed in a hurry, as are reliable ways to fabricate them and evaluate their expected performance in service."

Dr. Roberts said "the recent rash of gas pipeline ruptures remind us that we live in a mechanically imperfect world. And as we build larger structures, the potential for disaster is magnified.

"For example, a new class of barge has been designed to carry 11 million gallons of petroleum products. Last winter one of them broke apart and sank in New York harbor, despite having met approved construction specifications. Luckily the tanks were loaded with water at the time, or we might still be cleaning up the water front."

Added effects

Besides death or disability, Dr. Roberts commented, other consequences of mechanical failure include economic loss, with consequent cost and decline in productivity, and waste of irreplaceable raw materials.

"This aspect of the problem," he added, "will be reduced as we improve our recycling ability, but we've got a long way to go in this area. There are other consequences associated with the 'fail-discard-replace' cycle, such as the energy used and the pollution created in producing an item, and the problem of disposing of it if the materials are not recycled."

Referring to the concern of the Federal Government in mechanical failure problems, Dr. Roberts recalled that requirements in defense, space, and atomic energy have influenced the science of failure avoidance in fracture control and non-destructive evaluation (NDE).

"The very high strength materials that have been developed in aerospace construction," he said, "and the thick section steels developed for the pressure vessels of the AEC (Atomic Energy Commission), have in common their susceptibility to the presence of cracks.

"The need for designing against failure despite inherent flaws gave a great impetus to the science of fracture mechanics, and much was learned about the behavior of brittle materials that perhaps might not have been learned, or certainly would have been learned more slowly.

"With the added impetus of the troubles with the F-111 and the C5A, the Air Force now writes fracture control specifications into the requirements for aircraft. In a parallel effort, pressure vessels for use in nuclear power plants are subjected to a rigorous scrutiny for cracks. The zero defects program of NASA (National Aeronautics and Space Administration) owes much to fracture control methods. . . .

"Fracture control design and fracture proof manufacture is an emerging discipline that will assume ever more importance.

Dr. Roberts commented that mechanical failure prevention is a major concern of federal agencies concerned with health and welfare.

The Federal Highway Administration, he pointed out, has a program in effect on the detection of cracks in highway bridges.

OOPS! — *This fire department ladder buckled during a training exercise, and two firemen were injured in the fall. The cause: improperly treated aluminum alloy in the ladder.*

Some of the techniques developed for this purpose, he added, are derived from those previously developed for defense, space, and atomic energy efforts.

He recalled that the U.S. Coast Guard, in carrying out its responsibilities for merchant marine safety, has recently required fracture mechanics-based design for tankers carrying liquefied natural gas.

The Federal Government, through its huge purchasing activity, Dr. Roberts observed, "can do much to influence the reduction of mechanical failures."

Indication of the extent to which the public is turning to the courts in cases of product liability, he said, is shown by the fact that there were 50,000 suits based on product liability in 1960 and 500,000 in 1970.

"Not only is the absolute number of product liability suits growing astronomically," he said, "but there has been a drastic change in court climate regarding liability. A hundred years ago courts held that the manufacturer had no liability except where a contractual relationship existed. Over the years there was a shift to the situation in which the plaintiff had to prove negligence on the part of the manufacturer to the situation today in which the plaintiff need only prove that the article was unsafe in some way which caused him injury or damage to win his case.

"This shift has potential implications for public policy. Perhaps the notion of no-fault insurance for manufacturers should be considered. The no-fault concept is being applied in the area of automobile insurance, and extension in some form to the area of product liability is worth debating.

"Certainly it would go a long way towards reducing cost backlogs, as a million liability cases per year are foreseen within the next decade."

Need reliable tests

Dr. Roberts commented that asphalt roofing "is subject to mechanical failure as a result of thermal recycling, and reliable tests are needed for proposed replacements.

"The use of recycled materials," he added, "will bring about new testing requirements. For example, the stress-rupture resistance of high strength nickel base super alloys is seriously impaired by parts per million traces of selenium, a common element in scrapped electronics. New, fast, reliable analytical techniques will be needed in this area.

"There are mechanical failure problems in the development of synthetic body implants, in the use of plastics as load bearing materials, and in the use of polymer-impregnated concrete.

"Mechanical failure has a double impact on our foreign trade. First, our productivity must be high if we are to compete successfully in foreign markets, productivity is in turn linked to new products, new materials, and a minimum of breakdowns in the manufacturing process. Second, the products we sell abroad must also have a reputation for reliability, and that means fewer mechanical failures."

CHAIN REACTION DISASTER—*These vehicles were demolished when a furniture warehouse across the street was destroyed by a gas explosion. Several people died in the accident, which was attributed to a cracked gas pipeline possibly caused by the activities of heavy construction equipment operating in the area.*

Commissioner Lawrence M. Kushner of the Consumer Products Safety Commission, in a symposium address, pointed out that the Consumer Product Safety Act has introduced the safety ethic into consumer product industries, and that putting an unsafe product on the market can now lead to civil and criminal penalties.

The Commission, he explained, is charged with reducing the hazard posed to consumers by unsafe consumer products. Under the law, he said, the definition of a consumer product is broad. There are some exclusions, he added, consisting of products already regulated by other government agencies, including foods, drugs, cosmetics, automobiles, boats, airplanes and firearms.

"But what remains is impressive," he said, "generally estimated at about 10,000 products including toys, gas and electric appliances, power tools, recreational equipment, furniture, clothing, doors, windows and on and on.

"The range of regulatory options available to the Commission is also broad. Which one is used in a particular case depends on the severity of the hazard. For 'imminently hazardous' products, immediate ban and seizure are in order. For those requiring less immediate action but which are serious nevertheless, there are mandatory standards, nonconformance to which is a violation of law.

"For lesser hazards one can consider voluntary standards. And certain kinds of hazards may best be dealt with not through standards or other regulatory actions but through information and education programs directed to the consumer."

Kushner said the Commission would develop a list of qualified, technical people who are interested in serving on standardization committees as consumer representatives. The list will be compiled, he added, following a public solicitation addressed to the technical community, and will be available to any standards-developing groups seeking qualified technical experts as consumer representatives.

In addition, he said, the Commission will pay the expenses of such representatives in the development of standards in which the Commission has a particular interest. This will apply, he explained, to both mandatory and voluntary standards.

"One of the important components of any program to reduce mechanical failures," Kushner explained, "is the development of good non-destructive evaluation techniques."

He said that if an individual consumer buys a defective product, the likelihood of which the standard acknowledges if it has a sampling plan built into it, the development of nondestructive evaluation techniques which can be incorporated in the production process could give the manufacturer confidence of 100 percent compliance even though he may not have subjected 100 percent of his production to the proof tests in the standard itself.

"The real purpose of the Consumer Product Safety Commission is not to issue regulations," Kushner said. "It is not to levy fines, nor put people in jail. Our real purpose is to get manufacturers—and indeed all of those who are involved in the sequence of events from product design through production and distribution—to think product safety."

Three-Point Training Program Urged To Bolster Minority Business Skills

Under Secretary of Commerce John K. Tabor urges adoption of a three-point educational program to improve minority business prospects:

- For the person who already owns or manages a business, Tabor recommends specialized extension courses on surviving in business ownership.
- For the person about to become an owner, he calls for training and assistance to be furnished by groups of existing businesses, financial institutions and schools in each community at the time the would-be owner or manager seeks financing.
- For the future entrepreneur, particularly high school graduates about to enter college, Tabor seeks an expanded program of day-to-day exposure during vacations to the management and ownership problems of small and large businesses.

The Under Secretary said these were among the recommendations of the Education and Training Task Force of the Interagency Council for Minority Business Enterprise. Tabor is chairman of the Interagency Council, which was established by President Nixon to accelerate the work of all Departments in advancing minority enterprises.

"For the man and woman already an owner or manager of a business", he said, "who happens to be black or Spanish-speaking or Indian, because there has been a high failure rate in such enterprises in the past, a 'survival' training course in secondary and post-secondary schools on the fundamentals of business ownership could be of enormous help. It should be given with or without a degree."

Programs in being

For future entrepreneurs, he noted that the Commerce Department's Office of Minority Business Enterprise (OMBE) has already undertaken a management training program of the sort he had in mind in cooperation with the National Football League.

"Fifteen NFL players, hired by OMBE, are right now in the process of asking large and small companies across America to hire over 1,000 students this summer and for the next three summers, to work in the executive areas of corporations during their vacation periods. Commitments to hire 838 are already in hand," Tabor explained.

He said the task force found ". . . a chronic shortage of minority talent available to meet an unprecedented opportunity and need for owners, managers and business technicians, who could participate in the ownership and management of minority business enterprises."

Tabor declared, "If we truly want and expect all persons in this country to have available the option of owning or managing an industry, a plant or a business, education and training programs designed to provide needed management and business skills must become an integral part of the education system at all levels."

Tabor said the task force concluded that it is "urgent and vital" that elementary and high schools expand their programs to include courses dealing with accounts, bills, loans, buying, selling, profit, reinvestment of profits and other subjects necessary to business and industry careers.

Minority Firms To Get Marketing Assistance From AMA Volunteers

The American Marketing Association (AMA) has joined with the Commerce Department's Office of Minority Business Enterprise (OMBE) in bringing assistance to members of minority groups seeking to start a business or expand existing ones.

OMBE Director Alex Armendaris announced that AMA's Public Policy and Issues Division has compiled a list of 182 members who have volunteered free consultation and guidance in a wide range of marketing services, such as sales analysis, new product development, pricing, advertising, merchandising and teaching.

The names and addresses of the volunteers, and their particular areas of interest, are contained in a 56-page booklet, Directory of Minority Business Resources, recently published by OMBE and now being distributed nationally.

Armendaris commended AMA for its action in providing these volunteer services, stating that the area of marketing, "Is one of the most crucial to the success of a business, and one on which we place heavy emphasis in our OMBE program."

Other national organizations whose members provide volunteer services for minority businessmen include the American Institute of Certified Public Accountants, and the National Association of Accountants, as well as individuals and groups who provide volunteer technical and management assistance through OMBE's funded organizations.

A limited number of the directories are available to groups involved in minority enterprise programs, and may be obtained from the U.S. Department of Commerce, OMBE Information Service, Room 5712, Washington, D.C. 20230.

Sagging Birth Rate Creates Real Prospect Of Population Decline

The annual rate of population gain in the United States dropped by a third between 1970 and 1973, and the fertility rate dropped to a level which, if sustained, could result in the first actual decline in population in U.S. history.

If the 1973 rate of child-bearing holds, the Census Bureau reports, couples will only be having an average of 1.9 children, which is below the replacement level of 2.1 children per couple. The rate was 2.5 children per couple in 1970; in 1957 it was 3.8 per couple.

The net gain in population in 1973 was 1,505,000 persons, two-thirds the size of the 1970 gain of 2,223,000, and about half the Nation's peak annual gain of 3,058,000 in 1957.

Three at record lows

Three basic measures of annual population fertility reached their lowest levels in American history during 1973: crude birth rate, general fertility rate, and total fertility rate.

The crude rate—number of births per 1,000 of population—was 14.9 in 1973 or 41 percent lower than the 1957 rate of 25.2 births per 1,000. In 1970, the crude U.S. birth rate was 18.2 per 1,000 of total population.

In 1973, the general fertility rate—the number of births per 1,000 women 15 to 44 years of age—was 69.3. In 1957 it was 122.9, and in 1970 it was 87.9.

The total fertility rate—annual births expressed in terms of the implied completed family size of 1,000 women—was 1,902 in 1973. This was only half the 1957 rate of 3,767 births per 1,000 women and 23 percent below the 1970 rate of 2,480.

In all, during 1973 there were 3,141,000 births, more than a million less than the 4.2 to 4.3 million births recorded each year from 1956 to 1962 and more than a half million under the 1970 figure of 3.7 million. The 1973 birth total was the lowest number since 1945 when there were 2.9 million births.

Full details are contained in the Census Bureau's "Estimates of the Population of the United States and Components of Change: 1973 (With Annual Data from 1930)" P-25, No. 521, which is available for 45 cents from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402, or from Commerce District Offices in major cities.

Industry Highlights

U.S. Copper Supply Likely To Remain Tight In 1974

Copper remains in short supply in the United States and the world, and is likely to remain so for the foreseeable future.

Refined copper is available in the United States from domestic primary producers or from the "outside" market (as defined below). The producer market is dominated by a small number of large producers who, prior to the Economic Stabilization Program, had considerable discretion in setting prices. Not all producers charged the same price, but generally all producer prices fell within a narrow band of a few cents and tended to move up or down at about the same time. The "outside" market is a complex conglomeration of secondary refiners, importers, commodity exchanges, and merchants. Prices in this sector also vary among sub-markets but again within a band of a few cents.

For the most part the outside market is open, in the sense that anyone may purchase copper there if he can pay the price. The producer market is a closed one. Since producers can meet only a fraction of the demands for the lower-priced copper they ration their supplies by limiting their customers and the quantities each may buy.

Last year saw the coincidence of a business upturn in all major industrialized countries and, as a result, a growing shortage of many industrial commodities and sharply escalating inflation rates. In this country, the situation prompted President Nixon to impose a price freeze in June 1973 and follow it with a tough Phase IV in August. Complicating the matter further were a series of currency crises and the Arab oil price increase and embargo which drove speculators into commodity futures markets—particularly the London copper market. As a result, spot copper in London surged from 45 cents in December 1972 to $1.50 in April 1974, with only brief pauses in between. However, it had retreated to $1.15 before the end of the month and appeared to be headed even lower.

U.S. producers increased their prices from 50 cents in December 1972 to 60 cents at the time of the freeze. Some producers had announced a further 10 percent increase, but were rolled back by the freeze. In December 1973, these producers were allowed by the Cost of Living Council to raise prices to 68 cents and this price remained frozen there until April 30. Most producers currently charge 80 to 85 cents.

The recent basic problem in copper has been a sharp increase of 8 percent in world copper consumption while output was rising only 2 percent. According to the World Bureau of Metal Statistics, production of refined copper in the Western nations during the first nine months of 1973 totaled 4,888,000 metric tons, 165,000 m.t. less than consumption. Within the United States consumption plus exports has exceeded new supply in each quarter since mid-1972.

One effect of a prolonged divergence in producer and "outside" prices is that the limited supplies of lower price copper are rationed or allocated by producers. Another result is that the sometimes frantic bidding of U.S. customers for marginal supplies in markets outside the United States, which, added to the monetary uncertainties that have prevailed since February 1973, has helped trigger the dramatic price rise on the London Metal Exchange.

A third result is a rise in special priorities assistance requests submitted to the Department of Commerce under the authority of the Defense Act of 1950, as amended, and regulations issued thereunder.

Meeting reference needs

While it is recognized that at some point speculators and shortage psychology become influencing factors, the high prices in the outside market and the spread between the two markets nonetheless create serious business problems for copper users. These difficulties are then translated into supply problems for defense contractors needing copper-bearing products and materials to fulfill contracts for materials to be delivered to the U.S. Government.

Of the various sources of refined copper that could have been included under the defense priorities system under the Defense Production Act, foreign-origin materials in general are subject to the economic and political whims of foreign governments and the influences of international forces outside the control of the U.S. public or private sector. This situation is generally intolerable because defense production depends on predictable sources of materials.

If both primary and secondary refined copper are subject to defense rated orders during periods of wide price disparity, defense contractors would tend to place rated orders to obtain the least expensive material. Because the rated orders must be accepted by suppliers, defense contractors would have no criteria other than price in selecting suppliers. This is not necessarily true in the case of nondefense business, where considerations of long term customer/supplier relations are important.

A set-aside for defense needs, therefore, would be necessary to spread the burden equitably among primary and secondary producers, and the result would be a scramble by defense contractors for the lower cost primary copper. This would create an administrative burden on the primary producer, create delays in deliveries to defense contractors, and result in general disruption to the normal flow of copper material into the defense effort.

Further, it would be difficult for defense contractors to determine from one month to the next the percentage of their requirements that might be filled with copper produced from domestic ores and that higher priced copper produced from scrap. This uncertainty could result in fewer or possibly no bids on defense contracts requiring copper products. Finally, some defense contractors who have established positions with the producers of primary refined copper could have competitive advantages in bidding on defense contracts.

U.S. copper production apparently will not increase and thus the suppply situation will likely remain tight during the year for consumers, including defense contractors and producers of copper bearing products. A number of U.S. and Canadian producers continue to maintain partial "force majeure" restrictions on shipments to U.S. consumers. These problems, which originally began in mid-1973 are expected to continue for sometime. The "force majeures," which had been running as high as 40 percent of scheduled deliveries, have been attributed to diverse situations including: delays in start up of new facilities (Noranda in Canada); down time for installation of pollution abatement equipment (Phelps Dodge); and strikes and equipment breakdowns.

A key factor is the forthcoming labor negotiations which began May 1. Most contracts expire June 30. Both the past two negotiations resulted in strikes—8½ months industry-wide in 1967-68 and a shorter, more selective strike in 1971.

Hedge-buying this spring has added to the demand pressures expected to keep supplies tight until mid-year, regardless of the level of overall business conditions. British demand is improving following the lifting of the three-day-work-week and the easing of the oil problem, although there has been a marked softening in the Japanese market. The second half 1974 situation is unclear. Much depends on the outcome of the upcoming labor contract negotiations, the extent to which stocks may or may not have been overbuilt, and whether a business slow-down can be avoided.

Underlying these physical supply-demand problems is the role of non-copper factors on world prices. These variables include the recurrent world monetary crises, the purported movement of Arab oil money into commodities, and the general escalation of all metallic commodity prices in the European markets, and the growing cost of money as interest rates spiral.

TOURIST ATTRACTION—*Old river boats like the* S.S. President *are popular with foreign visitors to the United States, whose increased spending on U.S. vacations is helping to close the "tourist gap" in the U.S. balance of payments.*

U.S. 'Tourist Gap' Narrowed In '73; Further Gains Sought

The "tourist gap"—the excess of U.S. travelers' payments to foreigners over receipts from foreign visitors in this country—narrowed by $300 million in 1973, to a total of $3.1 billion.

Vigorous economic expansion in most major foreign countries during 1973, two dollar devaluations, and the subsequent depreciation of the dollar in exchange markets from February to July 1973 contributed to the surge in travel receipts.

Average per capita expenditures of U.S. travelers abroad rose less than 6 percent during 1973. However, depreciation of the U.S. dollar and inflation abroad raised the prices of travel services to U.S. travelers by considerably more than 6 percent.

The data show that:

► U.S. residents spent $8.3 billion on foreign travel in 1973, about 7 percent more than in 1972. The total includes $1.3 billion in payments to U.S. trans-ocean carriers, as well as spending in foreign countries.

► American earnings from foreign visitors amounted to $4 billion in 1973, 24 percent more than in 1972.

► U.S. travelers' trip expenses to Europe and the Mediterranean averaged $880, compared with $850 in 1972. Excluding trans-Atlantic transportation, U.S. travelers to the area spent an average of $509 during their stay, 6 percent more than for a longer visit in 1972 and about $21 for each day spent in the area. Average daily expenses per traveler rose 20 percent.

► About 6.9 million Americans traveled overseas in 1973, an increase of only 100,000 above 1972.

► Over 99 percent of U.S. travelers going abroad in 1973 traveled by air. Of the 6.9 million oversea travelers, less than 60,000 traveled by ship, compared with about 75,000 in 1972 and 95,000 in 1971. Sea cruises continued to grow in popularity, however, and about 750,000 U.S. residents took cruises last year, 14 percent more than in 1972.

Further step

To further narrow the tourist gap, the United States Travel Service is compiling information on new or improved tourism attractions for publicity in international news media.

USTS, the Commerce Department agency which is the official national tourism office, is seeking details of significant new tourism facilities that will be constructed or existing ones that will be substantially renovated between July 1, 1974, and July 1, 1976, in preparation for the American Revolution Bicentennial.

"We need to be able to provide information on new U.S. tourism opportunities to potential travelers and to the news media in other nations. Of course, we will continue to emphasize old favorites as well," says C. Langhorne Washburn, Assistant Secretary of Commerce for Tourism.

USTS is asking state and local tourism officials in the 50 states and the U.S. possessions to submit information which will be disseminated to more than 100 other nations.

Detailed information is being sought on nature of the project, groundbreaking dates, planned opening dates, capacity, proposed hours of operation, expected admission prices, availability of guest transportation from nearby metropolitan centers and other details of interest to travel agents and potential travelers from abroad.

Photographs or artist's renderings are also being requested for this continuing USTS project.

Any information on appropriate projects, which are planned for public use by July 1, 1976, should be forwarded to Office of Information Services, United States Travel Service, Washington, D.C. 20230.

Visitors from abroad

Of the 3.6 million foreign visitors to the United States from overseas in 1973, three-fourths came as tourists and the rest on business, to study, or in transit to other countries. They spent $1.5 billion in this country plus $700 million in passenger fares paid to U.S. carriers. Visitors from Canada and Mexico spent an additional $1.7 billion here in 1973.

Expenditures by visitors from Japan were $334 million in 1973, the largest amount from any overseas country and more than 60 percent above 1972. About 640,000 Japanese visited this country, a gain of more than 200,000 above 1972.

There were 1.6 million visitors from Europe last year, a 24 percent increase over 1972, and their spending totaled $560 million, also up 24 percent. Residents of the United Kingdom spent about $126 million in the United States, a 31 percent increase. Visitors from West Germany spent $137 million, a 47 percent increase. French visitors spent $76 million, a 21 percent increase.

Calendar For Businessmen

June 14 — Atlanta — Economic Census Data Users Conference, Stouffer's Atlanta Inn. Sponsors: Commerce's Southeastern Region, Atlanta Economics Club, Georgia Chamber of Commerce, Southeastern Economic Group. For information, U.S. Department of Commerce Atlanta Regional Office, Suite 523, 1401 Peachtree St. NE., Atlanta, Ga. 30309. (404-526-6000.)

June 16-18—Washington—National Coal Association 57th annual convention at Statler Hilton.

June 16-18 — Washington — Conference on management, marketing and sales, Mayflower Hotel. Sponsors: Washington Economic Co., OMBE Regional Office.

June 26-28 — Washington — Seminar on Improving Management Skills: For New or Prospective Managers, Georgetown University. For information, Ms. Betsy Girton, School for Summer and Continuing Education, Georgetown University, Washington, D.C. 20007. (202-625-3001.)

INTERNATIONAL COMMERCE REPORT

U.S. Share Of World Exports Of Manufactures Shows First Annual Increase Since 1968

The U.S share of world exports of manufactures to markets outside this country rose significantly in 1973 to 21.7 percent. This share is derived from trade data expressed in U.S. dollars reflecting constant (first quarter 1971) exchange rates.

The gain last year was the first annual increase registered since 1968. In the intervening period, the U.S. relative standing had weakened steadily until 1972 when it stabilized. The improved export performance in 1973 was attributable in part to the major currency realignments of the past few years which have strengthened the nation's competitive position.

U.S. exports of manufactured goods climbed almost one-third in 1973 to reach $45.5 billion. This rate of growth was almost three times that of the previous year and the fastest expansion in more than a decade. Shipments by the other 14 leading suppliers of manufactures, although rising less rapidly than those from the United States, nevertheless grew by a substantial 22 percent. The significant difference in growth rates resulted in an overall U.S. share of nearly one and one-half percentage points.

When trade is measured in U.S. dollars reflecting exchange rates prevailing during each period, the value of world manufactured exports is higher, since the currencies of the other suppliers, on the average, continued to appreciate the U.S. dollar until mid-1973. Although the trend was reversed in the latter half, for the year as a whole foreign currencies showed a greater value than in 1972. By the yardstick of current exchange rates, deliveries by this country's competitors jumped by almost two-fifths in 1973 and the U.S. share slipped moderately to 18.2 percent. Except when otherwise noted, the analysis in the remainder of this article is based on U.S. dollars reflecting constant rates of exchange.

U.S. gains widespread

The substantial improvement in this country's standing resulted from strong advances in all major groups of manufactures. Increases of 2.0 points in electric machinery and 1.9 points in chemicals were especially noteworthy.

The big gain in electric machinery boosted the U.S. share of the world market to 24.5 percent, its highest ratio since 1968. This performance was a consequence of a steep, 36 percent increase in exports from the 1972 level. An upsurge in shipments of electronic components contributed most to the U.S. gain. Sales of semiconductor devices, particularly integrated circuits, to Japan, Germany, and the United Kingdom expanded vigorously, as did those of semiconductor parts, mostly for assembly in Singapore, Korea, and Taiwan. In addition,

U.S. SHARE OF WORLD EXPORTS OF MANUFACTURES

Adjusted for seasonal variation

Commodity	U.S. exports (million dollars)	U.S. share of world exports to foreign markets [1] (% based on current rates of exchange [2])	(% based on constant rates of exchange [2])
Manufactures, total			
1972	34,285	18.6	20.3
1973	45,544	18.2	21.7
1972 1st qtr.	8,250	18.8	20.5
2nd	8,159	18.0	19.7
3rd	8,685	19.2	20.9
4th	9,203	18.6	20.2
1973 1st	10,012	18.6	21.0
2nd	10,911	18.2	21.6
3rd	11,693	17.4	21.8
4th [3]	13,026	18.7	22.5
Chemicals			
1972	4,162	18.2	19.8
1973	5,780	18.1	21.7
1972 1st qtr.	1,047	19.0	20.7
2nd	952	17.0	18.6
3rd	1,014	18.2	19.8
4th	1,157	18.7	20.3
1973 1st	1,229	18.0	20.4
2nd	1,342	17.8	21.3
3rd	1,501	17.1	21.7
4th [3]	1,718	19.5	23.7
Nonelectric machinery			
1972	9,637	24.8	26.7
1973	12,212	24.0	28.2
1972 1st qtr.	2,334	24.9	26.9
2nd	2,305	24.2	26.2
3rd	2,435	25.6	27.6
4th	2,567	24.6	26.4
1973 1st	2,718	24.7	27.5
2nd	2,918	24.0	28.0
3rd	3,217	23.6	29.1
4th [3]	3,412	24.1	28.6
Electric machinery			
1972	3,741	20.6	22.5
1973	5,092	20.5	24.5
1972 1st qtr.	900	20.9	22.8
2nd	881	20.0	21.8
3rd	946	20.9	22.8
4th	1,013	20.8	22.6
1973 1st	1,139	21.4	24.1
2nd	1,220	20.7	24.5
3rd	1,322	19.8	24.7
4th [3]	1,411	20.4	24.3
Transport equipment			
1972	8,347	25.7	27.9
1973	10,786	25.2	29.6
1972 1st qtr.	1,985	26.3	28.5
2nd	1,995	25.0	27.2
3rd	2,154	27.0	29.2
4th	2,217	25.0	26.9
1973 1st	2,473	26.6	29.6
2nd	2,614	25.0	29.4
3rd	2,619	23.1	28.4
4th [3]	3,078	26.1	30.8
Other manufactures			
1972	8,398	11.7	12.9
1973	11,674	11.7	14.1
1972 1st qtr.	1,984	11.6	12.7
2nd	2,026	11.4	12.6
3rd	2,136	12.2	13.3
4th	2,249	11.8	12.9
1973 1st	2,453	11.5	13.1
2nd	2,817	11.7	14.1
3rd	3,034	11.4	14.4
4th [3]	3,407	12.2	14.8

Note: First quarter 1972 U.S. exports and U.S. percentage shares were inflated because of strike-delayed shipments. The term "manufactures" refers to chemicals, machinery, transport equipment, and other manufactures except mineral fuel products, processed foods, fats, oils, firearms of war, and ammunition. U.S. data have been revised to reflect the new seasonal adjustment factors released at the end of February.

[1] World exports are defined as exports from the 15 major industrial countries. Percentage shares are based on values excluding shipments to the United States. These nations, which account for 80 percent of world exports of manufactures to foreign markets, are: United States, Austria, Belgium-Luxembourg, Canada, Denmark, France, Federal Republic of Germany, Italy, Netherlands, Norway, Sweden, Switzerland, United Kingdom, and Japan.

[2] Two series of U.S. percentage shares are shown. The first column shows shares based on current rates, the official rates of exchange for merchandise shipped during each period. The second column shows shares based on data measured at constant rates of the first quarter 1971, prior to widespread currency changes.

[3] Preliminary.

deliveries of electric generators and household appliances also advanced significantly.

U.S. chemical firms, expanding shipments to foreign markets by nearly two-fifths, posted their first increase in share in five years. Special nuclear materials, especially to Japan, were among the fastest growing exports, reversing the downturn experienced in 1972. In the organics group, coal tar and other cyclic intermediates were exceptionally strong sellers. Shipments of plastics and resins were likewise expansive. These product trends helped raise the U.S. share of chemicals exports to 21.7 percent.

In the transport equipment market, the U.S. position rose substantially to 29.6 percent. Following a moderate decline in 1972, civilian aircraft deliveries jumped sharply as bigger sales to Canada, the Netherlands, and France more than offset the steep drop to Japan. Similarly reversing a downturn the previous year, deliveries of military aircraft nearly doubled. Shipments of automobiles to Canada advanced at twice the rate of the previous year, but those of parts and accessories, mainly for assembly operations, slowed. Exports of automotive products to countries other than Canada showed a large increase for the first time in many years.

The U.S. share rose notably to 28.2 percent in the nonelectric machinery market as deliveries climbed by one-fourth from the 1972 level. Sales of a wide variety of product lines posted gains ranging between 30 and 40 percent. Among them were materials handling equipment, nonagricultural tractors, mining and well drilling machinery, computer parts, textile and leather machinery, metal cutting machine tools, and agricultural machinery.

The smallest improvement in this country's position occurred in "other manufactures," a diverse group encompassing semifinished goods and consumer nondurables. Nevertheless, compared to performances in recent years, the better than one point rise to 14.1 percent was substantial. Higher prices, particularly for such items as nonferrous metals and iron and steelmill products whose sales climbed 68 percent and 57 percent, respectively, contributed importantly to the sharp rise in overall U.S. exports in this group. At the same time, shipments of textiles, gem diamonds, and wood manufactures also rose strongly.

British share up

Among the five leading U.S. competitors, only the United Kingdom improved its overall position in the manufactures market during 1973, although by less than half a point. Japan's share held virtually even, while the standings of France and Italy slipped modestly and Germany posted a loss of about half a point. It should be noted, however, that data based on prevailing rather than constant exchange rates reveal a different pattern. The most important shifts occur in Germany, where the loss becomes a significant increase, and in the United Kingdom, where the gain reverses to a substantial decline.

The improvement in the British position resulted from large gains in "other manufactures" and chemicals, which more than offset minor losses in the other groups. Japan's stable position was a consequence of a sizable decline in chemicals and a lesser one in "other manufactures" balanced by gains in transport equipment and nonelectric machinery.

In France, the sharp decline in transport equipment was the main contributing factor to its slight share drop. Italy's weakened position was attributable to reductions in transport equipment as well as "other manufactures." The significant deterioration in the German share resulted from large declines in all areas except "other manufactures" which remained unchanged.

Shipbuilding Equipment Mission Logs Good Sales Prospects In Korea, Taiwan

Tankers being built . . . shipyard under construction . . . expansion plans detailed . . . contracts on hand. . . . This is how the log reads—the market logbook of a recent U.S. Shipboard Engineering Equipment Trade Mission to Korea and Taiwan.

Representatives of nine U.S. suppliers of products and services related to shipbuilding and shipyard construction toured every major yard in both countries, and talked with leading government officials, naval architects and engineers, potential representatives and businessmen. The mission members' survey, according to Director Monroe E. Aderhold of the Commerce Department, prompted the conclusion that both the immediate and the long-range market potential are excellent.

"In view of the planned expansion programs and ship construction contracts on hand, U.S. firms should establish immediate contact with shipbuilders in both countries and provide them with brochures and technical information concerning their products," said Aderhold.

Expansion in both countries

Timing of the trade mission visit was propitious, the participants agreed. The shipbuilding industries in Korea and Taiwan have experienced dynamic growth and modernization during the past two years. One of the most modern shipyards in the world, with capabilities to construct 1-million-d.w.t. tankers, is currently operating at full capacity in Ulsan, Korea. A similar shipyard is under construction at the industrial complex in the suburbs of Kaohsiung, Taiwan.

The governments of both countries have accorded high priority in their economic development plans for construction of additional shipyards to build ships ranging from small fishing trawlers to ultra-large

IN TAIWAN—*Mission member John Corcoran (right) of Western Gear Corp. negotiates with prospective customer during interview at U.S. Trade Center in Taipei.*

IN KOREA — *Mission members (above) are being briefed on the operations of the Korean Shipbuilding & Engineering Co. in Pusan.*

cargo carriers, new port facilities, container yards, and industrial projects related to manufacturing equipment and supplies required to support continuing expansion of their shipbuilding industries.

Japan has been the predominant supplier of technical services and equipment for ship construction in Korea and Taiwan because it entered into financial, technical, and manufacturing agreements during prior years and established a solid foothold in the market. However, this predominance is diminishing because of rising labor and material costs in Japan, a recognition of the superiority of U.S. products and, in part, the policies of the Republic of China and Korean Governments which are encouraging shipbuilders to develop alternative but competitive sources of supply and licensing agreements with firms from other countries. According to one member of the mission, "There are tremendous prospects for our products—much larger than I imagined."

Best prospects cited

The market appears exceptionally promising, Aderhold reported, for technical and management services, heavy lift equipment, welding equipment, metal-cutting and forming machinery, heavy-duty machine tools, shipboard instrumentation and control equipment, protective coatings and propulsion equipment. In addition, there is an excellent market for replacement parts and equipment required for the maintenance and modernization of U.S.-origin naval vessels.

To offset the shipping advantage enjoyed by Japanese suppliers, in terms of cost and time, purchasing agents and management personnel emphasized to the mission the importance of early delivery and adherence to delivery promises as important factors in making procurement decisions. Moreover, there is profound interest in joint ventures or licensing arrangements with U.S. firms to manufacture, locally, equipment and supplies for the shipbuilding industry. Particularly attractive would be proposals which involve utilization of manufacturing capabilities available in Taiwan and Korea.

Mission members were uniformly satisfied with the scope of business contacts made. Six agency or representation agreements were concluded and seven more are under negotiation. Members believe that projected sales will exceed $35 milion during the next 12 months and a larger volume in subsequent years when they are established in the market.

Members of the mission were: William Wahlenmaier and William Budd of Delaval Turbine, Inc.; Justin Miller, Everseal Mfg. Co.; Thomas Balish, General Electric Co.; Diuguid Parrish, Hydranautics; Cemal Baris, Korody-Colyer Corp.; John Perscheid, Leslie International; John House, Marathon LeTourneau Co.; John Commerton, John J. McMullen Associates; John Corcoran, Western Gear Corp.

ON THE GO—*Part of group inspects the Dae-Sun Shipyard, also in Pusan. From left (foreground): W. Wahlenmaier, Delaval Turbine, Inc.; F. Eisenbeigler and A. Schmidt, overseas representatives for General Electric and Western Gear, respectively.*

SELLING IN NEAR EAST — *Amman forms backdrop for recent U.S. Water Resources Development Trade Mission, as it visits the Jordan Valley Commission for briefing on current irrigation projects. Left to right: David Grunau, Bradley Tyrrell, Ubaldo Pignatelli, Norman Farah, Wasef Hammad (at rear), Clarence Jones, and Norman Thorn.*

Near East A Lucrative Market For Water-Related Equipment

Bringing back a whopping sales projection for the next 24 months approaching $60 million, in addition to anticipating substantial results from the initiation of 11 agencies and seven joint ventures, a recent U.S. Water Resources Development Trade Mission to the Near East sees the area as an increasingly lucrative market.

The 11-member group of U.S. businessmen visited Kuwait, Qatar, Bahrain, Saudi Arabia, and Jordan. Of the firms represented, three were architectural-engineering companies; two, desalination equipment manufacturers; one each, makers of pumps, irrigation systems, "packaged" pumping station, concrete pipe machinery, industrial and municipal waste water treatment equipment, and laboratory and process-monitoring instruments. Most of the members plan to return within the next 60 days with plans for major commitments to projects in the area.

"The market is ripe not only for water development and use equipment," says the Commerce Department's Bradley Tyrrell, who headed the mission, "but it is rapidly becoming a major market for waste water treatment and pollution control equipment, as the urban population grows, oil refineries raise production rates, and other industrialization gets under way."

Sales prospects were reported for equipment for desalination, for both seawater and brackish water conversion, pumping, distribution, and irrigation. In addition, design prospects were uncovered for a $100 million housing project and a major updating and expansion of an industrial park area.

Resource paradox

This oil-rich part of the world is eager to trade its new-found wealth for a broader-based economy, and pushes for modernization and industrialization at an unprecedented rate; yet with all its wealth, it still presents an awkward paradox in basic resources, mission members observed. Its abundance in oil contrasts sharply with its dearth in potable water, the basic need for any growth in agriculture, for urbanization, and for industry. Although some water is present in a low-ground collecting point, or "wadi" as it is called, little or no water is actually at the surface and must be pumped up from deep wells.

As this push for modernization continues, increased water needs draw larger and larger water reserves from the ground, pumping levels lower, and the water, at first relatively usable, becomes more and more brackish and in serious need of desalination. The growing need for larger quantities of water has forced the area to go to a greater and greater use of sea water for its potable water source. An interesting adjunct is the fact that this need, coupled with increasing electric power needs, makes the nuclear power plant highly feasible—as one major byproduct of such an installation can be a sea water desalination section.

Viewing operations

In Kuwait, the mission met with Agricultural Ministry officials, Kuwait Planning Board members, and other government agency representatives. In Riyadh, Saudi Arabia's seat of government, the U.S. businessmen held discussions with the Agricultural and the Water Ministries. In Jidda, the group took special trips to a desalination plant operated by Conam Services, a division of Automation Industries, Long Beach, Calif., and the Wadi Fatima agricultural area, an experimental government irrigation project. As they left Saudi Arabia, mission member Clarence R. Jones commented:

"In the five years since I have visited this country I note a tremendous advance in all areas of its development. The leaders are young and knowledgeable—many have been educated in the United States . . . I gained the distinct impression that U.S. services and goods were preferred above all others."

In Amman, the schedule provided meetings with the Jordan Valley Commission, Minister of Agriculture, National Planning Council, and the Mayor of Amman. In each country, there were individual interviews, pre-arranged by the various U.S. Foreign Service posts.

The following companies and their representatives comprised the mission: Beckman Instruments, Fullerton, Calif., Ubaldo R. Pignatelli; Concrete Pipe Machinery Co., Sioux City, Iowa, Frank L. La Due; Envirotech Corp., Menlo Park, Calif., N. F. Farah; FMC Export Corp., Indianapolis, Ronald H. Graham; Irrigation & Industrial Development Corp., New York, Wassef Mohamed Hammad; Jones and Fellers, Inc., Augusta, Ga., Clarence R. Jones; Kuljian Corp., Philadelphia, Puzant H. Jeryan; Mid-Continent Engineering Corp., Broomfield, Colo., David A. Kesler; Polymetrics Inc., Santa Clara, Calif., David L. Grunau; Stanley Consultants, Inc., Muscatine, Iowa, Norman L. Thorn; and Westinghouse Electric Corp., Pittsburgh, Blaine G. Rieck.

U.S. And EC Agree On Compensatory Tariff Reductions

The United States and the European Community have agreed on a formula for reducing Community tariffs on a range of American industrial and agricultural items which is expected to benefit an estimated $750 million to $1 billion in U.S. exports annually. The reductions are in compensation for import duty changes that occurred when Great Britain, Ireland and Denmark acceded to the European Common Market.

President Nixon, announcing the agreement, said it "represents a major step toward improved Atlantic relationships" and "it also helps to clear the way for prompt Senate action on the Trade Reform Act."

In saluting Vice President Christopher Soames of the European Community Commission and Ambassador William D. Eberle, the U.S. Special Representative for Trade Negotiations, for the successful conclusion to negotiations that began in January, 1973, the President expressed the hope that the spirit that led to this agreement might continue in other important economic negotiations that lie ahead.

Ambassador Eberle said that the EC approval of the settlement formula **(see chart at right)** "moves us much closer to starting the new round of multilateral, reciprocal trade negotiations, which are more urgent now than ever because of serious strains on the international trading system."

The cuts concern such products as kraft paper, photographic film, non-agricultural tractors, excavating machinery, diesel and marine engines, measuring instruments, pumps and plywood.

The duty cuts were agreed to under Article XXIV:6 of the General Agreement on Tariffs and Trade (GATT), which requires customs unions to grant compensation to supplier nations when individual national import duties of member states are raised in adjustment to a common external tariff schedule (CXT).

EC negotiators have taken the position that the tariff cuts the three new member nations were required to make upon their accession to the European Community far outweigh the tariff increases involved. The U.S. case, based on GATT rules, was that it has previously granted concessions in bargaining for the lower tariff rates in the three acceding countries and was entitled to compensation from the Common Market for the loss of these lower tariffs.

The concessions just approved are additional to tariff changes which are being automatically implemented by the U.K., Ireland, and Denmark as well as some tariff concessions the Community negotiated with other countries.

U.S.-EC Settlement Package

Item	Current Tariff	Jan. 1, '75 Tariff
Tobacco: flue-cured Virginia and Burley, per package, not less than 280 UA per kilos	unbound 15% with 70 UA maximum	Bound at 14% with 45 UA maximum
Tobacco: other above 280 UA	unbound 15% with 70 UA maximum	Bound at 15% and 70 UA maximum
Sweet oranges: fresh	15% April 1-Oct. 15*	(a) April 1-April 30, 13% (b) May 1-May 15, 6% (c) May 16-Oct. 15, 4%
Photographic film: 35 mm and less (except X-ray, graphic and microfilm)	12.8%	8%
Nonagricultural tractors: except semi-trailer tractors	20%	14%
Trucks: "Dumpers" below 10,000 cc	22%	(a) on Jan. 1, 1975, 20% (b) on Jan. 1, 1976, 17%
Trucks: "Dumpers" equal to or above 10,000 cc	22%	20%
Excavating, levelling machinery: "scrapers"	11%	9%
Parts, accessories for all types of excavating machinery	11%	9%
Marine Engines: that part of position currently suspended, concerning sea going vessels and tugs	11%	0%
Other marine engines	11%	(a) Jan. 1, 1975, 9% (b) Jan. 1, 1976, 8%
Outboard Motors: engine capacity of over 325 cc	11%	8%
Polyamides	17.6%	16%
Antiknock preparation: based on tetraethyl lead	15.8%	13%
Other antiknock preparations	10.4%	9%
Antiknock preparations: based on tetramethyl lead, etc.	11.8%	9%
Other antiknock preparations	11.2%	9%
Offals: of domestic bovine animal other than livers	12%	7%
Other offals	6%	(a) Jan. 1, 1975, 4% (b) Jan. 1, 1976, 3%
Kraft paper and paperboard	12%	(a) Jan. 1, 1975, 11% (b) Jan. 1, 1976, 10.5% (c) July 1, 1977, 8.5% (d) Jan. 1, 1979, 8%
Diesel engines	14%	(a) Jan. 1, 1975, 13% (b) Jan. 1, 1976, 12%
Disposable diapers: put up for retail sale	14%	(a) Jan. 1, 1975, 12% (b) Jan. 1, 1976, 10%
Swine livers	14%	11%
Other swine offals	12%	9%
Bovine livers	14%	11%
Grapefruit	6%	4%
Raisins	6%	4%
Fresh salmon	8%	4%
Preserved salmon	13%	(a) Jan. 1, 1975, 10% (b) Jan. 1, 1976, 7%
Plywood	13%	**13%
Pumps: other, over 20 bars	9%	7.5%
Manometers	11%	9%
Other Measuring Instruments	10%	9%

* Concession implemented June 1, 1974. ** Duty exemption within tariff quota.

GENERAL VIEW—*Under geodesic dome in Queensland, U.S. Ambassador to Australia, Marshall Green, opened aviation exhibition. In background is "portable theaterette" used to show aviation films; also visible is section of aircraft display area.*

U.S. Aircraft Sales Take Off At Sydney Trade Center Show

When the cash register stopped ringing at the Sydney Trade Center's recent General Aviation Exhibition on Australia's Sunshine Coast in Queensland, their figures indicated that $5,118,875 worth of aircraft and avionics had been sold off the floor. In addition, almost $35 million worth of sales are forecast for the next 12 months—of which $1.42 million were projected by participants that were new to the market.

But as James W. Goodsell, Sydney U.S. Trade Center director, said, even more to to the point was the remarkable number of licensees, distributors and sales representatives appointed as a result of the exhibition. Five were appointed during the show itself and 78 are expected to be appointed within the forthcoming 12 months by the eleven U.S. manufacturers seeking agents, distributors, or licensees.

The exhibition, said to be the first of its kind in Australasia, combined the display of aircraft and avionics, manufactured by 66 U.S. companies, with seminars and an aerial pageant. The show attracted visitors from throughout the Southwest Pacific basin. New Zealand was strongly represented, as were Pacific Islands and South East Asia.

Australia, and the State of Queensland in particular, has one of the highest planes-per-capita ratios in the world. Although aircraft have been widely used in agriculture there for many years, the Queensland exhibition was designed to focus on general use by business and industry. The crowded seminars proved to be a tremendous drawing card. The first, dealing with technical aspects of general aviation, attracted 204 registrants. The second, dealing with "The Aircraft as a Business Tool," drew a blue ribbon crowd of 169 executives.

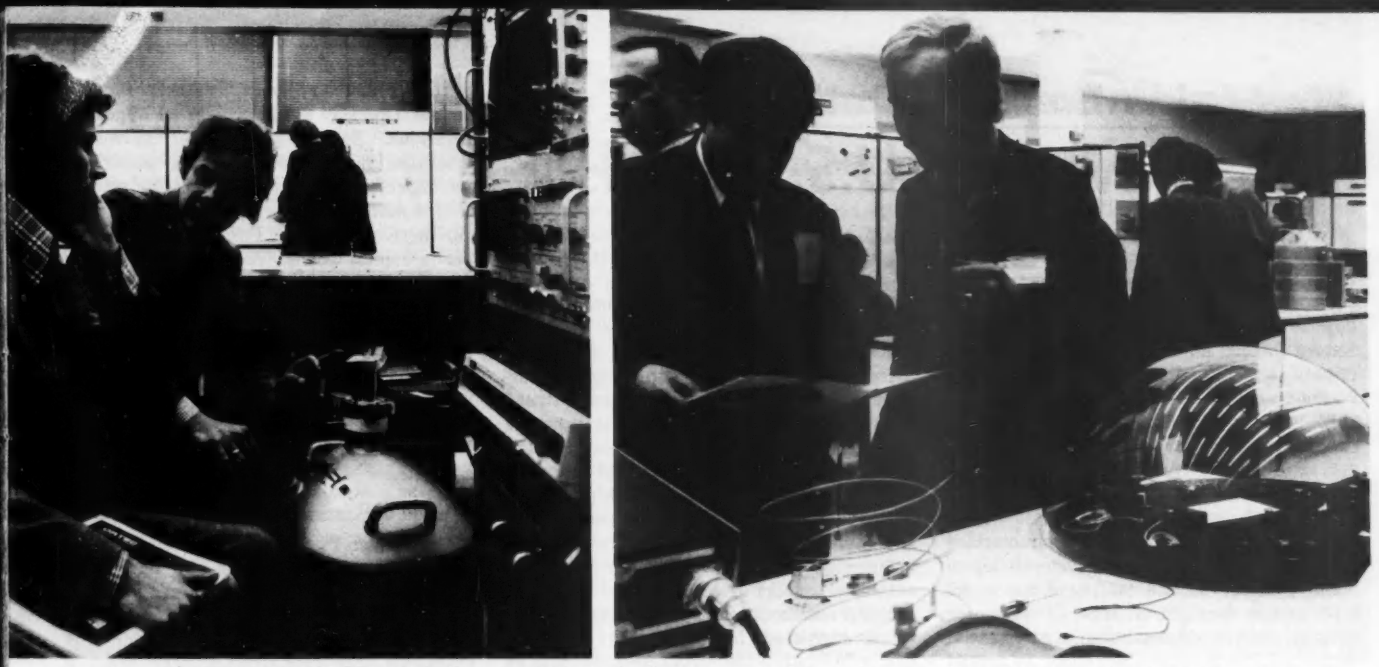
Focal point of the exhibition and the seminars was the presence of Colonel David R. Scott, U.S. astronaut and deputy director of NASA's Flight Research Center in Edwards, Calif. The Apollo 15 astronaut's seminar presentation concentrated chiefly on the benefits that general aviation will derive from NASA's current aeronautical research.

Nine of the exhibitors were new to the market. One of them, Curtis Pitts of Homestead, Calif., president of Pitts Aviation Enterprises, said:

"I arrived here completely cold and everything was in order. I am tickled with the response of the Australian people." And A. H. Reinfeld of Rahway, N.J., president of REA International Corp., commented:

"We saw everybody we wanted to see; contacts were very good, interest very high. It gave us an opportunity to introduce new products."

INTERIOR DISPLAY—*During walk-through by official party, several pause to view engine on exhibit. Center photo: Symbolizing speedy return to Australia, R. G. Tonge of Sunshine Coast Promotion Bureau presents U.S. astronaut David R. Scott (left) a hand-carved boomerang. Photo on right: In front of Swearingen Merlin IV Metroliner, Earl Morton (left) of Texas firm accepts letter of intent from Syd Williams, Bush Pilots Airways, Cairns, for purchase of an 18-passenger Metroliner.*



DEMONSTRATING INSTRUMENTS—*At recent U.S. Trade Center exhibition in Frankfurt, a promotional official (right, first photo) of Ortec, Inc., shows visitor his coaxial detectors and systems for material testing. In right photo, A. Riedel (right), Elsytec, Inc., explains to another interested German visitor the use of high temperature accelerometer in nuclear reactors.*

German Research Interest Again Shown In U.S. Nuclear Instrumentation

The interest of Germany's research centers in U.S. nuclear instrumentation was further confirmed at the recent exhibition of such equipment at the U.S. Trade Center in Frankfurt.

Considerable attention was drawn, for example, to the closed-cycle helium refrigerator systems for single crystal cooling manufactured by Air Products and Chemicals, Inc. of Allentown, Pa. The two leading German experts in neutron diffraction and spectrometry experimentation, Dr. Bartl and Dr. Muellner, both from the Nuclear Research Division of the Frankfurt University, are just starting a new series of neutron diffraction experiments and are planning to use this system. The Karlsruhe Nuclear Research Center has ordered the first of these units. Such interest was a result of the U.S. company's pre-show promotion.

Opening day response

Reactor Experiments, Inc. reported outstanding response to a German TV broadcast covering the opening day of the show and featuring their "digi-master," a recently developed digital readout radiation meter and pocket dosimeter. Reactor Experiments even report inquiries from Singapore resulting from the U.S. Trade Center's publicity program.

Transco, Inc., a new-to-market exhibitor, achieved exceptional results in promoting its removable reflective insulation for nuclear reactors. This Chicago-based firm negotiated with five major customers. These discussions are expected to yield orders during the next year worth $5 million. Parvin Riddle, general sales manager, stated:

"All arrangements were handled well. I look forward to utilizing the other U.S. Trade Centers."

Some 500 experts came to the fourth such nuclear equipment show at the Trade Center. This time, 29 U.S. exhibitors representing 38 manufacturers presented the latest U.S. developments.

Although the show was limited in focus, because of its specialization, the sales forecast for the upcoming 12 months following the event added up to $10,852,000—$4.2 million by participating companies that were new to export or to the German market. Some $67,000 worth of floor sales were booked during the exhibition. Many of the visitors attended the accompanying three-day symposium, during which papers were presented by specialists.

Of the five U.S. companies looking for representation or licensing arrangements in Germany, three had signed a total of four agreements by the end of the show; nine additional agreements were under negotiation.

Germany is a net importer of nuclear equipment and materials, and imports of U.S. equipment are expected to exceed $100 million a year by the end of 1975.

U.S. Exhibition Results In Brief

The following summary reports have been received on U.S. overseas commercial exhibitions. Further details and marketing data derived from these exhibitions will be published as available.

USAQUIP '74—U.S. Exhibition of Agricultural, Building, and Construction Equipment and Products. Jakarta Fair Grounds, April 16-20. Exhibitors, 45. Floor sales, $4.5 million; 12-month projection, $47.3 million, of which $3.9 million is estimated by new-to-market firms. Representatives obtained, during or after show, 12. Exhibition sponsored by Commerce and set up by U.S. Regional Trade Center in Singapore in cooperation with American Embassy in Jakarta.

Printing and Graphic Arts Exhibition. U.S. Trade Center, Frankfurt, May 14-17. Exhibitors, 22. Floor sales, $514,110; 12-month projection, $5.6 million, of which $3.4 million is estimated by new-to-market firms. Agreements concluded, 2; 14 under negotiation. Business visitors, almost 600.

ANPAC '74 — Exhibition of Packaging Equipment. U.S. participation organized by U.S. Trade Center, Sydney. Sydney Showgrounds, May 20-24. Equipment of 43 U.S. manufacturers exhibited in 28 booths in U.S. pavilion. Floor sales, $1.7 million; 12-month projection, $9.7 million, of which 3.1 million is estimated by the five new-to-market exhibitors. Visitors, 2,300.

Worldwide Business Outlook

Yugoslavs Like U.S. Goods, Competitive Prices, Terms

A high level of Yugoslav investment, 1973's dollar devaluation and favorable Export-Import Bank financing will all contribute to increased U.S. sales to Yugoslavia in the second half of 1974, according to the U.S. Embassy in Belgrade. At the same time, an ever-growing number of U.S. firms are expected to invest in new plants in Yugoslavia under the country's joint venture legislation.

The Yugoslav economy was characterized in 1973 by rapid inflation, accelerated production in the second half, and the country's second straight balance of payments surplus. On the external side, a substantial trade deficit was more than offset by record invisible receipts from tourism and remittances from Yugoslavia's migrant workers abroad. Domestically, the most vexing economic problem was a high rate of inflation that was exacerbated by worldwide increases in the price of fuels, raw materials and semi-manufactured goods. Industrial production accelerated in the third and fourth quarters, after slow growth in the early part of the year.

The struggle to temper inflation is the priority goal of Yugoslavia's economic planners in 1974. In February, the government adopted an anti-inflation package designed to decrease the rate of government expenditures, protect against imported inflation and adjust government policies to the anti-inflation effort. Nevertheless, the inflation rate in 1974 is likely to remain at 1973's high level.

Rates of investment and consumer demand continue to be high. A very strong growth rate in 1974's first half is expected to be tempered later in the year by electricity shortages and high costs for imported raw materials. The anticipated high import bill appears likely to offset increased exports and invisible earnings to create a moderate balance of payments deficit for the year.

Despite export restrictions on U.S. agricultural commodities, U.S. exports to Yugoslavia increased by 31 percent in 1973. While U.S. sales amounted to $261 million, U.S. purchases from Yugoslavia reached $271 million, 80 percent higher than 1972.

The breakdown in the composition of Yugoslav imports in 1973 was 63 percent industrial materials, 21 percent capital goods and 16 percent consumer goods. There is increased demand for U.S. goods in each of these categories.

U.S. suppliers of industrial materials can expect increased sales opportunities in the following large Yugoslav markets: nitrogen function compounds, organic-inorganic compounds, synthetic and organic dyes, paints and varnishes, chemical and potassic fertilizers, polymerized plastics, synthetic fibre, yarn, washed copper bars and wire, unwrought aluminum alloys and borate.

BUYING FOR YUGOSLAV PLANT—*Peter Smith (left), of Chemetron's Votator division, explains engineering features of the Thermex 1200 KW dielectric heater to Marc Zoukourian of Cifal, a Paris engineering firm which is building a plant for Industrijski Kombinat Krivaja at Zavidovici, Yugoslavia. Zoukourian and other officials of the French and Yugoslav firms recently visited the American company's offices in Louisville, Ky.*

U.S. consumer goods, scarcely familiar to the Yugoslav public, retain an appealing mystique. Recent government moves to liberalize imports of consumer goods can be expected to increase American sales.

Undoubtedly, the area in which prospects for increased sales of U.S. goods are brightest is capital goods. Yugoslav businessmen have considerable respect for U.S. technology. With American prices now more competitive, the Yugoslav businessman can be expected to exercise his preference for U.S. machinery, particularly that of a sophisticated nature. Much depends on financing and, in this regard, the U.S. Export-Import Bank has proven to be very competitive with European banks.

Where U.S. can make sales

Chemicals: Yugoslavia's chemical imports have risen dramatically in the past three years to over $350 million annually. Representatives of Yugoslavia's large trade organizations see a lucrative market for U.S. chemicals with high-technological input. A market exists for U.S. synthetics, pharmaceuticals (already fairly well represented), and plastics. Demand is high for polyethylene, polypropylene, PVC and other plastics.

Agricultural machinery and equipment: The steadily expanding Yugoslav market, $196 million in 1970, is expected to exceed $375 million by 1976. In June 1973, the government announced a "Green Plan" to further upgrade the agricultural sector. This government emphasis on agriculture will increase sales opportunities for agricultural technology and equipment.

Textile yarn, fabrics and synthetic fibers: As in other developing nations, textile and apparel manufacturing is one of this country's fastest growing industries. Yugoslavia's imports of textile and apparel raw materials (yarns, fibers and fabrics) amount to more than $160 million annually.

Mining and earthmoving equipment: Yugoslavia's long-range planners intend to continue development of the nation's ferrous and non-ferrous metals producing capacity. Yugoslavia will exploit its large—and largely untapped—deposits of non-ferrous metals, particularly aluminum, copper, lead and zinc. In addition, new power plants will be constructed near large deposits of lignite coal that will be extracted through stripmining. These expansion plans provide major sales opportunities.

Textile machinery and equipment: Opportunities for sales of textile machinery are expected to be good during the next two years. Since 1968, the Yugoslav textile and apparel manufacturing industry has grown at a strong rate. Processors are installing new machinery and some enterprises are adding synthetics processing to their capacity. The best U.S. prospects are for highly automated knitting machinery, fiber working machines, thread spinning machines, cotton gins and auxiliary equipment.

Energy systems: Yugoslavia today faces

serious shortages of electric energy. To meet needs, it must double present capacity of 8,400 MW within the next five years. Present plans call for construction of 10,000 MW of new capacity by 1980; approximately 5,500 MW of this will be thermal plants and 4,500 hydroelectric plants. The cost of this expansion in today's prices is an estimated $3.44 billion. Of this, an anticipated 20-25 percent will go for the purchase of foreign equipment. The best U.S. sales opportunities are for turbines, generators, 500-800 MW forced-circulation boilers, control panels, regulating systems and accessories and nuclear power plants.

Biomedical equipment: Yugoslavia offers one of the fastest growing markets for biomedical equipment in Europe. The country's continuing efforts to increase hospital bed capacity should generate a 20 percent annual average increase in purchases of medical apparatus from 1974 to 1976. Yugoslavia's imports of biomedical equipment, $16.3 million in 1972, are expected to reach $30 million by 1976.

Printing and graphic arts equipment: The average annual consumption of this equipment is expected to rise from $14.3 million in 1972 to $21.6 million in 1977. A growth rate of 4 percent is anticipated during 1974, but this is likely to increase to an average annual growth rate of 12 percent during the period 1976-77. Strong demand is expected for sheet-fed presses, phototypesetting systems and lithographic processes, as well as associated equipment.

Food processing and packaging equipment: Yugoslavia is expanding its food production and placing its processing capabilities on a truly commercial scale in order to sell its agricultural commodities to the European Common Market, and to serve the tourist and domestic food industries. Plans call for a 50 percent increase in production by 1977. Yugoslav food processors are anxious to acquire advanced American equipment for all stages of processing and packaging. The foreign equipment market is estimated between $20-30 million annually.

Metalworking machinery and equipment: Due to special emphasis on heavy industry, metalworking machinery is in big demand for both ferrous and non-ferrous metals processing. Metal products are a major export item, and the industry has available foreign exchange to purchase foreign equipment and technology. In 1973, Yugoslavia's metalworking industry purchased $83 million in foreign equipment. There is a good market for all types of automated metalworking machines, particularly numerically and computer controlled machinery.

Pulp and Paper Processing: The Yugoslav pulp and paper industry is comprised of 30 pulp and paper factories, eight factories producing packing paper and six cardboard factories. Several projects to construct large factories are in the planning stage. Yugoslav planners are interested in foreign equipment and technology.

Italy's Long-Term Industrial Momentum Should Help Speed Economic Recovery

While problems faced by the Italian economy are major, the U.S. Embassy in Rome believes that the potential in Italy for American goods and services is growing in spite of and, in some instances, because of the energy crisis. However, the temporary import deposit regulation that became effective May 7 (see *Commerce Today*, May 27, page 34) may have a transitory negative impact on certain U.S. exports to Italy.

The sustained upswing in economic growth which occurred in 1973 confirmed earlier indications that the Italian economy had overcome the 1971-1972 economic recession. However, real growth in GNP may drop somewhat this year.

The outlook in 1974 for Italy's domestic inflation and balance of payments is worrisome, in part because of higher world prices for petroleum, food and industrial raw materials. Despite government efforts to control the severe inflationary spiral which occurred in Italy last year, prices rose at a record rate in 1973 and are expected to increase even more in 1974. Imports have increased more rapidly than exports as domestic prices continued rising and as domestic consumer and investment demand firmed up with economic recovery. To this has been added a rising import bill for oil, which will aggravate the problem of financing the expected 1974 balance of payments deficit.

Price increases have made some inroads on the real wage gains of labor, and difficulties in checking inflation, despite a selective price-freeze program, could induce the labor unions to adopt more aggressive wage bargaining tactics or possibly to seek the early renegotiation of national labor contracts.

Continued floating of the lira independently of other Common Market currencies has permitted a further devaluation of the lira. The strengthening of the dollar against other European currencies following the energy crisis has offset somewhat the competitive price advantage which U.S. exporters enjoyed in Italy over European exporters following the earlier dollar devaluations. Also, the lira devaluation has offset somewhat the price advantage of U.S. goods over Italian goods both in Italy and in third markets.

In spite of the fluctuating terms of trade for U.S. firms occasioned by exchange rate movements, the longer-term objectives of the Italian Government to foster economic growth, greater industrial investment and job creation should create increasing sales possibilities in the Italian market for U.S. firms.

Italian trade statistics for 1973 show that imports from the United States rose for the first time in history over the $2 billion mark, to $2.3 billion from the $1.6 billion of 1972. This growth of 44.3 percent (compared with 4 percent in 1972) was slightly better than the overall rise of 44 percent in total Italian imports and halted, for the first time in five years, the gradual erosion of the share of the Italian import market held by American suppliers. The U.S. market share remained at about the 1972 level of 8.3 percent of all imports.

The increase in world commodity prices and the across-the-board economic recovery in Italy as well as some stockpiling against future commodity price rises and lira devaluations have all had an influence on the large rise in the value of Italy's imports. The overall performance of imports from the United States, viewed from the relative market share point of view, was satisfactory.

Leading the sharp rise

A major factor in the sharp rise in Italian imports from the United States, as well as in total Italian imports (an increase of 44 percent in 1973 versus 13.6 percent in 1972), was a dramatic growth in agricultural commodity imports. The substantial increase measured in quantity terms was accentuated by the strong upward pressure on world commodity prices in 1973.

Imports of American manufactured goods and industrial semi-manufactures increased during 1973 but at much more moderate rates than agricultural commodities. Reversing the 1972 experience, according to preliminary Italian statistics, U.S. sales of transport equipment—80 percent of which is in aircraft and parts—rose by 46 percent. Sales of American chemical products increased by over 25 percent, while iron and steel imports from the United States, reflecting American controls on scrap exports in the face of world shortage, declined by 7 percent. Copper and copper alloy shipments from the United States evidenced a marked growth of nearly 50 percent. Coal deliveries from the United States fell by about 7 percent during the year.

Italy is a country which is poor in energy and raw materials and an inadequate producer of basic agricultural products. Italian imports in these sectors are expected to remain strong. To alleviate this heavy commodity import requirement, (e.g., crude oil imports alone were $3.4 billion in 1973, an increase of 38 percent) plans such as those to increase nuclear power generation and to step up international agricultural production (particularly meat production) may provide some relief in time, but will require both major investment and significant imports of capital goods and technology.

American exports to Italy tend to be highly responsive to the Italian business

U.S.-ITALIAN AGREEMENT—*Giuseppe Calabrese (left), president of Officine Calabrese, a Bari, Italy, transportation equipment maker; William E. Grace, chairman and chief executive officer of Fruehauf Corp. (center); and Alexander S. Aranyos, president of Fruehauf International, sign agreement to manufacture Fruehauf equipment in Italy.*

cycle, tending to increase rapidly in periods of expansion and to slacken more than proportionately in times of economic slowdown. A key factor in the potential for U.S. sales in Italy thus remains the level of investment—public and private. The energy crisis and its accompanying inflationary influences are slowing the Italian recovery which took place in 1973.

However, the combination of public sector investment projects in infrastructure and the need of the state-holdings and the private sector to reorganize production to meet the changed factor costs of the mid-70s should combine to give added impetus to increasing investment levels. Greater stability in the political and economic structure would facilitate such investments. This new investment cycle would require greater use of resources, particularly energy and raw materials, which would, in turn, favor imports of American capital goods, services and technology.

The general field of public sector procurement is a case in point. ENEL, the national electric energy agency, after years of delay based on environmental considerations, has already awarded to Italian licensees of U.S. firms contracts for the supply of the first of several atomic power stations to be built before 1980. ENEL is also planning to complete the national high tension power net, now broken between Rome and Florence. These projects will be supplied mainly by domestic industry but could provide for U.S. suppliers of specialized control equipment and new insulating products.

The Italian State Railways have major equipment and right-of-way expansion needs (e.g. 2,000 freight cars, 700 locomotives, no main line trackage broader than two track) to correct a long-standing inability to handle the nation's freight and increasing passenger needs. Most of the expansion in normal equipment will be satisfied by Italian firms but there are possibilities for American computerized freight car control systems and specialized control and safety devices.

Also in the transport field, the Ministries of Defense and of Transportation and Civil Aviation have programs for improvement of Italy's civilian airports and of air navigation and landing control systems. Markets exist for radar, data transmission, navigation and telecommunications equipment.

While not related directly to energy, the Italian Government is making efforts to modernize its information handling and storage procedures. One of the most interesting markets resulting from this will be in the conversion of government records to microfilm, opening new possibilities for microfilm systems, copiers, readers and storage facilities.

Find a good representative

American suppliers in these fields have potential for government sales but, to be successful, must have adequate representation in Italy. With the exception of the State Railways, government agencies have no legal requirement to buy when available in Italy but will rarely be interested in foreign product lines not represented locally unless the product is not only novel but unique. American firms can find effective Italian representation through the exhibits of the U.S. Trade Center in Milan, or through the Department of Commerce's Agency Distributor Service.

Energy-related needs have already come to light in the private sector. With the probability of power shortages in the next few years until the ENEL projects cited earlier come on stream, there is growing interest in standby electric power generation equipment, in diesel sets as well as in gas turbine generators. The latter equipment reflects what the Embassy believes will be a growing market for natural gas-fueled equipment and for conversion of existing equipment to natural gas use. Two natural gas pipelines into Italy from the Netherlands and from the Soviet Union are scheduled to go into operation shortly and a third line from Algeria via Tunisia has received approval. This greatly increased availability of natural gas combined with the multiplied cost of crude oil products should make natural gas very attractive to industrial users as well as to individual consumers, although price increases may reduce somewhat the cost advantage that gas now offers.

As regards consumer products, the energy crisis may have negative effects on the growth of imports from the United States due to the restored higher value of the dollar during late 1973 and early 1974. In early 1973, while the lire-dollar relationship had undergone only slight change, the effective revaluation of other currencies in relation to the two gave U.S. suppliers a decided advantage over European and Japanese competitors in several consumer lines. While the price element may no longer be as favorable to the United States in all commodity lines, the combination of the lower U.S. inflation rate on costs, the specific quality advantages and, in some instances, the U.S. economies of scale, should offer continued potential in such areas as textiles (wash-and-wear bed linen, some upholstery fabrics, cotton rugs), clothing (children's and leisure clothing, jeans) and boating equipment (accessories and instrumentation, inboard and outboard motors, innovative boat designs).

In the industrial sector, professional electronics and electronics component manufacturers are moving ahead at a rapid pace affording sales potential for U.S. producers of transistor integrated circuit and microwave testing devices, production equipment for microcircuiting, power and small-signal transistors, digital memory circuits, digital electronic meters and special types of power sources. The Italian Government's decision to go ahead with construction of ITALSIDER's fifth steel complex at Gioia Tauro may afford possibilities, in time, for American firms in the rolling mill and specialized controls fields. Chemical industry expansion is still going forward—although the effects of the petroleum situation have still not been fully felt—and offer continued opportunities for sales of specialized and non-corrosive pumps, valves and fittings and of various advanced control and test systems.

As part of the government plans for fostering greater industrial investment in the south and shifting to public transport, FIAT may establish plants for bus construction in southern Italy. If this takes place, FIAT, which operates some of the most highly automated plants in the world, may provide a further market for specialized machine tools, automatic welding devices and plant assembly equipment.

U.K. Plans Higher Taxes For Foreign Executives

Foreign executives working for foreign companies in the United Kingdom will be subject to increased taxes under new rules introduced in the new British budget.

Until now, non-U.K. nationals have been taxed only on income they have had remitted to the United Kingdom. Henceforth, they will be taxed at full rates on 50 percent of their income, whether remitted or not. Further, foreigners working in the United Kingdom for nine out of ten years will be taxed on the same basis as British subjects.

Representatives of the American Chamber of Commerce in London have commented that the new ruling is arbitrary and unfair. A poll taken by a magazine (The Overseas American) showed that 69 percent of Americans questioned were considering leaving Britain as a result of the new tax rule.

The starting date for application of the new rules was April 6. From that date, the starting point for tax liability on foreign income of residents of the United Kingdom from offices and employment, pensions and trades and professions is the full amount of the income, whether or not received in the United Kingdom. U.K. natives will be liable to income tax on their full earnings. However, if the job is carried on wholly outside the United Kingdom, a deduction of 10 percent is allowed where the job entails absence of less than 365 days in one continuous period. If the continuous period is more than 365 days, earnings from the job qualify for 100 percent deduction for tax purposes. Non-U.K. residents will be liable for tax on earnings to a total of 50 percent. If the job is carried on wholly abroad, however, tax liability will be limited to the amount actually remitted to the United Kingdom.

Israel Imposes 20 Percent Import Deposit Requirement

In an effort to conserve foreign exchange and to absorb excess liquidity in the economy, the Government of Israel has imposed on Israeli importers a broad requirement for prior deposits. Importers must deposit with the government 20 percent of the c.i.f. value of imported goods, except for the exempt categories named below. The deposit must run for 12 months from the time of customs clearance, will bear no interest, and will not be linked to the consumer price index.

The new requirement became effective on May 24. A similar deposit requirement had been in effect between 1970 and late 1973.

The following categories of import are exempt from the deposit requirement: food and food products, petroleum, imports for re-export, personal and household effects, shipments valued at less than 5,000 Israel pounds ($1,190), and imports which are duty free or dutiable at rates less than 10 percent.

U.S.-Romania Unit Meets In Bucharest

"We are willing to work out forms of cooperation that best suit your and our needs," President Nicolae Ceausescu of Romania told a blue ribbon group of U.S. corporate executives at a meeting June 1 in Bucharest.

His view was a recurrent theme in discussions between the Americans and their Romanian counterparts at the inaugural meeting of the Romanian-U.S. Economic Council, established in December 1973 by the Romanian and U.S. Chambers of Commerce during President Ceausescu's visit to the U.S.

The American section, comprising 44 executives from 25 firms and trade associations, was headed by Gabriel Hauge of Manufacturers Hanover Trust Co., New York. The Romanian section is led by Vasile Voloseniuc, president of the Romanian Bank of Foreign Trade, and includes top ministerial officials and those from industrial and foreign trade organizations.

Both sides agreed on the importance of obtaining Most-Favored-Nation tariff treatment for Romanian exports to the U.S., and the American group reaffirmed their support for Congressional authorization for such treatment. Other recommendations were for the freest and most simplified flow of bilateral trade, and for encouragement of U.S.-Romanian cooperation in licensing, marketing and manufacturing. The Americans met individually with Romanian commercial officials to explore specific business opportunities.

The next plenary session of the Council is planned for Washington in the spring of 1975.

Commerce Issues Documents On U.S.-Polish Trade Accords

The U.S. Department of Commerce has published a series of documents covering the development of American-Polish trade relations since the formation of the Joint American-Polish Trade Commission in June 1972 by President Nixon and top-ranking Polish officials.

The documents include excerpts from the Joint Communique establishing the Joint Commission as well as communiques, excerpts from press conferences, press releases and exchanges of letters of the first three Commission meetings held in August and November 1972 and September 1973. The documents also cover the opening of the U.S. trade development and technical information office in Warsaw and the summary report of the working group of the Joint Trade Commission on reciprocal business facilities and arrangements.

The 55-page publication, *American-Polish Trade Accords, 1972-1973*, is available at $1 from Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402, or any Commerce Department District Office.

Merchant Ship Report

The Department of Commerce's Maritime Administration has published a statistical report on *Foreign Flag Merchant Ships Owned by U.S. Parent Companies*, as of Dec. 31, 1972. It includes foreign flag oceangoing merchant type ships of 1,000 gross tons and over owned by U.S. parent companies located and incorporated in the United States, either by direct ownership or ownership through a foreign subsidiary company.

***Foreign Flag Merchant Ships Owned by U.S. Parent Companies* can be obtained at a cost of 90 cents from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.**

Calendar For World Traders

June 11-12 — Washington, D.C. — International Economic Roundtable Meeting on Issues and Answers for U.S. Manufacturers Facing Global Economic Change, Washington Hilton. Sponsor: National Association of Manufacturers.

June 12 — New York — FCIB Publishers Export Credit Group luncheon meeting, Advertising Club.

June 13 — New York — Workshop on Trade Secrets and Know-How Protection in Europe, New York Chamber of Commerce and Industry. Panelists include Joseph Lightman, Acting Deputy Director of Commerce's Foreign Business Practices Division.

June 18 — New York — FCIB Hardware-Automotive & Allied Trades Group luncheon meeting, Advertising Club.

June 19-20 — New York — Program on International Tax Compliance, World Trade Institute.

June 20 — New York — FCIB Drug, Chemical & Food Export Club luncheon meeting, Advertising Club.

July 15-19 — New York — Course on Marketing Your Products Internationally, American Management Association headquarters. Speakers include Merritt Freeman, Director of Commerce's Export Information Division.

Worldwide Business Services

International trade specialists in the Department of Commerce and Foreign Service Officers in the U.S. Embassies and Consulates around the world are continually developing specific commercial opportunities through which American companies can find buyers, agents, partners or investors abroad. One of the major means for communicating these opportunities promptly and accurately to the U.S. business community is through the columns of this magazine.

The section that follows presents details about U.S.-sponsored exhibits abroad, licensing and joint venture proposals, opportunities to sell to foreign enterprises and appoint agents, and details on major construction and expansion projects.

U.S. Promotions Abroad

Printing and Graphic Arts Equipment Catalog Exhibition. Hong Kong, Taiwan, Thailand. July 9-25. Local printing and graphic arts industries in these nations are expanding rapidly, causing many firms to upgrade quality of operations to remain competitive. Recent currency revaluations and the recognized high quality of U.S. machinery and materials contribute to making this area of the world, and especially these markets, favorable for U.S. suppliers. Call Robert E. Peterson, 202-967-3973.

Analytical and Laboratory Instruments Catalog Show. Stockholm. Aug. 5-10. The Intergapore. **July 24-Aug. 7.** Implementation of plans for product improvement and reduction of labor costs, in the rapidly expanding industrial sectors of these nations, has created a growing market for analytical laboratory instrumentation. Call Robert E. Peterson, 202-967-3973.

Hotel and Restaurant Catering Equipment Catalog Exhibition. Lesotho and Swaziland. August. Lesotho and Swaziland are two of the newest, fastest-growing vacation areas in Africa. This introductory trade promotional activity is geared to help meet the growing demand of this area's burgeoning tourist industry. Call Robert E. Peterson, 202-967-3973.

Computers and Information Processing Catalog Show. Stockholm, Aug. 5-10. The International Federation of Information Processing Congress and Exhibition, held in Stockholm, will provide U.S. firms with an ideal marketing opportunity to gain wide exposure in the Northern European area. The Swedish market for computers and related equipment is strong. Sales activity there is expected to exceed $245 million by 1977. Some 90 percent of this will probably be imports. Call Robert E. Peterson, 202-967-3973.

U.S. Textiles Exhibition. Sydney Trade Center, Aug. 6-8 and Melbourne, Aug. 13-15. This tandem exhibition will provide U.S. manufacturers a unique opportunity to either expand sales or enter the important Australian textile market, which is continuing to expand at a rapid rate. Textile imports have increased from $280 million in 1968 to over $461 million in 1973. Due mainly to extreme worldwide material shortages, traditional Australian buying patterns have undergone considerable change. This factor, accompanied by both the Australian and U.S. currency adjustments and unilateral Australian tariff reductions, has created an overwhelming preference for U.S. textiles. Contact John Klingelhut, 202-967-3646.

Electronic Data Processing Equipment, Related Business Equipment and Systems. Singapore Regional Trade Center. Aug. 19-23. Singapore, the commercial/financial center of Southeast Asia in addition to its growing entrepot economy, is emphasizing increased industrialization. Because of this, Singapore's demand for high-speed data handling and the most modern business methods is burgeoning almost as fast as its economy, which boasts 10 percent-plus growth rates for the last several years. Participation is limited. Contact your nearest Commerce District Office or Peter M. Dunlap, Washington, D.C. Coordinator, 202-967-5545.

Shoemaking and Leather Goods Machinery and Equipment. Buenos Aires Trade Center. Aug. 26-30. The Argentine shoe manufacturing industry is highly atomized and under-capitalized and in need of modernizing its basic equipment. If the current trend of increasing foreign demand for Argentine shoes continues, the industry will be forced to expand and upgrade production facilities. Investment over the next three years for new equipment could range from $6 million to $10 million, most of which will have to be imported. Local equipment manufacturers cannot supply more than a fraction of the potential demand. Display equipment for this exhibition must be 100 percent U.S. origin. Call Vicky Eicher, 202-967-4463.

Food Processing and Packaging Equipment Catalog Exhibit. Ethiopia and Zambia. September. The processing of agricultural and food products for export is receiving key emphasis in Ethiopia's drive to expand its export sector. Zambia is also developing food export items and is striving to become self-sufficient in food. The market for food processing and packaging equipment is expected to increase steadily and both countries have sufficient foreign currency reserves to make substantial purchases. Call Robert E. Peterson, 202-967-3973.

Plovdiv Fair—U.S. Exhibition of Modern American Agriculture Technology. Plovdiv, Bulgaria. Sept. 3-10. The U.S. pavilion will contain agricultural exhibits covering tractors, harvesters, agricultural chemicals, irrigation equipment, milking machines, fruit and vegetable pickers, tobacco processing equipment, planters, etc. The pavilion will house both indoor and outdoor display space. Plan is for 20-25 exhibitors. Call 202-967-5163.

Polymery-74 — Foreign Exhibition for the Plastics Industry. Moscow. Sept. 3-16. The Soviet Five-Year Plan targets investments for the petrochemcial industry at 4.1 billion rubles in 1974 and 4.7 billion in 1975. Soviet-built equipment for the plastics industry has proven inadequate in terms of variety, quantity, and technology. Soviet imports of equipment, processes, and technology for the petrochemical industry jumped 10 percent in 1971 and 56 percent in 1972. Call Jim Robb, 202-967-4810.

Educational Communications Systems. Stockholm Trade Center. Sept. 9-13. Market research surveys indicate great interest by the Scandinavians in U.S. technology in education communication systems. An extensive promotion campaign will be conducted in the four Scandinavian countries to insure attendance of key decision makers, buyers and training professionals. Call William Beiring, 202-967-3276.

Advanced Fluid Power Equipment. Tokyo Trade Center. Sept. 9-14. The fluid power equipment market in Japan recorded an annual average 30 percent rate of growth through the decade of the 1960s. A high level of demand for advanced fluid power equipment including water-cooled and oil-less compressors, quick-connect couplings, level and pressure gauges and intensifiers is expected to continue through 1977. Sales of U.S.-manufactured air and hydraulic motors, servosystems and servovalves, actuators and hydrostatic transmissions as well as fluid power equipment for the aerospace industry are also expected to increase dramatically in the coming 24 months. Contact Ray Alvarez, 202-967-2461.

Pollution Control Systems and Equipment Catalog Exhibition. Paris. Sept. 10-14. The French Government, becoming increasingly aware of the pollution control problem, has established regulations which have generated a growing market for pollution control systems and equipment. Imports in this field are expected to exceed $85 million for the 1974-1975 period. This catalog exhibition will be held as part of a major French exhibition—Environmental Expo '74—Man, Air and Water—and should prove beneficial to U.S. companies which have appropriate equipment and systems for the pollution control and solid waste disposal requirements. Call Robert E. Peterson, 202-967-3973.

16th Brno International Engineering Fair. Brno, Czechosolvakia. Sept. 11-19. The U.S. Exhibition theme will be "Electronic Data Processing" and will feature computers, peripherals, calculators, office machines, and electronic data processing equipment including software. Market research estimates that Western sales potential for EDP equipment over the next three years (1974-1976) is $42-52 million, with approximately $14-17 million in 1975. The U.S. exhibition will be limited to 20 exhibitors. Call Jim Bushery, 202-967-5163.

Industrial and Commercial Security Equipment. Paris Trade Center. Sept. 16-20. American manufacturers and suppliers of security equipment for fire protection and extinction, burglary and pilferage detection and prevention, access controls and communication equipment have growing opportunities to sell to French buyers. Rising theft and crime, special fire protection legislation and generous discounts on insurance premiums for adequately protected premises are compelling companies to consider protective security devices. Contact Charles M. Whitley, 202-967-5381.

Telecommunications and Data Transmission Equipment and Systems Technical Sales Seminar to Romania, Yugoslavia and Poland. Sept. 17-Oct. 3. Plans have been formulated for a broadened and integrated telecommunications network in Eastern Europe and the Soviet Union. Although the

bulk of the equipment will be produced within the Council for Mutual Economic Assistance, there will be good opportunities for sales of U.S. hardware in particular areas. This technical sales seminar will emphasize capabilities in the higher-technology areas of telecommunications and data transmission, including satellite communications, microwave transmission, data terminals and communications, mobile radio, closed circuit and cable television systems. Call Wyn Coates, 202-967-5285.

Business Automation Equipment, Joint Export Establishment Program (JEEP). Milan Trade Center. Sept. 20-25. In 1973 the demand for business automation equipment in Italy was $480 million and by 1976 is expected to exceed $900 million. Emphasized will be accounting and bookkeeping systems; desk-top and mini-computers; high-speed copiers; microfilm equipment including retrieval, storage and filing; computer cash registers and terminals; punched tape and magnetic tape billing and invoicing machines; microfiche; computer terminals with business applications. Call Robert Welsh, 213-824-7581.

Electronics Industry Production and Test Equipment and Electronics Components Equipment. Regional Trade Center, Singapore. Sept. 23-27. Market research in Singapore, Malaysia, Indonesia, and Thailand indicates highest potential for sustained growth in exports offering favorable opportunities for U.S. manufacturers of such equipment and components. Participation is limited. Peter M. Dunlap, 202-967-5545.

Biomedical Equipment. Frankfurt and Paris Trade Centers. Sept. 30-Oct. 3, and Oct. 8-11, respectively. This tandem scheduling gives U.S. firms the opportunity to participate in either or both events. The biomedical market in France is growing rapidly. The U.S. supplies about one-sixth of French imports and one-third of Germany's in this field. Call Bob Wallace, 202-967-3748.

Shipboard, Port and Marine Equipment Catalog Exhibit. Stockholm. Oct. 3-5. This exhibit will be held in conjunction with the Nordic Shipbuilding Conference sponsored by the Swedish Royal Institute of Technology and will draw participants from Sweden, Norway, Denmark and Finland. The largest shipyard outside of Japan and some of the world's largest ports are located in Scandinavia. Numerous expansion projects are planned which will offer excellent opportunities for export-minded firms in the U.S. Robert E. Peterson, 202-967-3973.

Health Care Equipment Catalog Exhibit. Buenos Aires. Oct. 7-11. The Argentine Government is currently emphasizing improved health care for the country's over 24 million people and plans an integrated national health system. Expenditures on investments in health care are expected to be $100 million during the 1974-1977 period. Plans should generate good sales opportunities. Robert E. Peterson, 202-967-3973.

Offshore International. Olympia, London. Oct. 7-11. This exhibition, being held in cooperation with Industrial Trade Fairs, Ltd., is designed to bring U.S. goods and services to the emerging European offshore market for oil and natural gas exploration and production, but especially to ongoing activities in the North Sea and adjacent maritime areas of West and South Britain and Ireland. The projected value of North Sea capital investment in 1973 was estimated at $480 million. The projected value in the latter 1970's should total $1.4 billion with the U.K. shelf area share at $720 million. Contact C. Edward Walls, 202-967-4256.

Pharmaceutical and Cosmetic Manufacturing Equipment and Materials Exhibition. Milan Trade Center. Oct. 8-12. The pharmaceutical and cosmetic industries represent a major sector of the Italian economy as indicated by production figures that totaled over $2 billion in 1973. These industries are projected to expand at an average annual rate of 8.8 percent. U.S. manufacturers of production and packaging equipment and raw materials and substances will find a ready market for their products in Italy. This exhibition has been timed to coincide with the International Chemical Engineering Exhibition (MAC '74) on the adjacent Milan Fairgrounds. Beryl D. Cohen, 202-967-4508 or William S. Gaines, 202-967-3822.

Bucharest International Fair. Bucharest, Romania. Oct. 13-22. The U.S. exhibition theme, Industrial Process Instrumentation and Control, will feature equipment from simple temperature indication to the sophistication of on-line digital and analog computing and will cover such process industries as chemical, pulp and paper, petrochemical, plastics, ceramics, textiles, mining, rubber, etc. In addition, the exhibition will include remote control valves, pumps, and proportioning equipment as used individually or in a system. Call Dick Bell, 202-967-5163.

Plastics Production Equipment (JEEP). Taipei Trade Center. Oct. 14-18. Manufactured plastic products rank third among the foreign exchange earnings of Taiwan. To insure the future of this vital industry, major projects are under way to make the country almost self-sufficient in petrochemicals and plastics. Industry is striving to upgrade standards of product design, quality and production. As a result, equipment requirements are becoming more sophisticated. Including instruments and controls, the market is estimated at about $6 million. This event, limited to new to export/new market firms only, combines an exhibition with a technical seminar. Contact Donald L. Schilke at the U.S. Department of Commerce District Office, 1406 Mid Continental Plaza Bldg., 55 E. Monroe St., Chicago, Ill. 60603, or telephone 312-353-5096.

Refrigeration Equipment. Tokyo Trade Center, Oct. 14-19. Japan is one of the largest and fastest growing mass consumption markets in the world. Its 107 million people are earning more money and have more disposable income than ever before. Japan is therefore looking for technology and goods that will improve its standard of living. Of notable interest is its demand for refrigeration and cooling equipment. Currently estimated at $2 billion, it is projected to grow 35 percent annually for the next seven years. Products of interest include air-conditioning systems for public buildings, warehouses and supermarkets; cold chain equipment, including cold storage warehouses, refrigerated transport, supermarket storage, and display cases; and home refrigeration systems. Contact John Wolf, 202-967-4056.

U.S. Agricultural Equipment Trade Mission to Ethiopia, Sudan, and Kenya. Oct. 14-25. In light of priority emphasis of the governments of Ethiopia, Kenya and Sudan on agricultural development and the large existing U.S. share of the market in these countries, the U.S. Department of Commerce is sponsoring this mission to Addis Ababa, Nairobi and Khartoum. The following equipment has been identified as high priority items for these markets: cultivating equipment; harvesting machinery; oilseed processing machinery; coffee processing and related equipment; non-road tractors; poultry, livestock and dairy equipment; and irrigation pumps. Contact Wanda Lee Ale, 202-967-3119.

Automekanika '74 — International Exhibition for Motor, Workshop and Service Station Equipment. Frankfurt. Oct. 18-22. The U.S. pavilion will offer American manufacturers of automotive maintenance and service equipment and parts and accessories an excellent opportunity to exhibit and sell their products at the largest event of its type in Europe. Call Bill Dawson, 202-967-4941.

Wood and Wood Related Industries Catalog Exhibit. Oporto, Portugal. Oct. 18-27. This exhibit, to be held in conjunction with the 1st Exposition of Wood and Wood Related Industries, Furniture, Paper and Forestry Products, will encompass all aspects of the wood industry including equipment for logging, sawmills, and finishing operations plus wood-derived products such as building materials, furniture and paper (including equipment to produce these items). Portugal's imports in all of these areas totaled $49.4 million in 1972 and are increasing steadily. Call Robert E. Peterson, 202-967-3973.

Data Communications Equipment and Systems. London Trade Center. Oct. 21-25. Domestic annual consumption of data communications equipment and systems throughout the United Kingdom continues to soar, reaching nearly $500 million by the end of 1973. Increasing at an annual rate between 13-15 percent, shipments from the U.S. to the U.K. were estimated at $100 million last year. This event is scheduled for the inauguration of the new, more modern, spacious and accessible U.S. Trade Center facilities in London, located at 4/5 Langham Place. Call Robert Blake, 202-967-3276.

Machine Tools Exhibition. Mexico City Trade Center. Oct. 21-25. Imports of metalworking equipment from the United States are expected to increase substantially. The overall market potential for metalworking machine tools and metal finishing equipment for metal parts has been forecast to reach $102 million, a compound rate of 8 percent annually, by 1978, despite growing local production. Call Mary Wiening, 202-967-5037.

Computers and EDP Equipment Catalog Exhibit. Zagreb, Yugoslavia. Oct. 21-26. This exhibit will be part of INTERBIRO, the 5th International Exhibition of Data Processing Systems and Office Equipment. The Yugoslav market for computers and EDP equipment is growing rapidly and is expected to reach $45.6 million by 1977. Minicomputers and peripheral equipment are of special interest. Call Robert E. Peterson, 202-967-3973.

Projekt 2000—International Trade Fair on Pollution Control. Graz, Austria. Oct. 23-26. American manufacturers and suppliers of equipment for the control of air and water pollution, noise abatement, sewage treatment, solid waste disposal, and radiation control have a special opportunity to gain increased sales throughout Europe by exhibiting in the U.S. pavilion. Trade visitors from the governmental buying units of Eastern Europe concerned with environmental protection will be in heavy attendance. Call David Katz, 202-967-3748.

Advanced Educational and Training Aids (JEEP). Tokyo Trade Center. Oct. 24-26. With a population of 109 million people and a school attendance of over 95 percent, improved techniques and equipment for Japan's educational systems are constantly being sought. In addition, Japanese businesses actively try to provide training opportunities for their employees. There is, therefore, an active market for industrial training equipment and new learning techniques. This exhibition is limited to new-to-market U.S. participants and is designed to put them in contact with potential representatives who can handle sales on a continuing basis. Call John Wolf, 202-967-4056.

Sales opportunities in 7 U.S. commercial exhibitions, 10 catalog exhibitions, 21 shows at U.S. Trade Centers, 1 trade mission and 2 technical sales seminars are being offered to present and potential U.S. exporters between now and November.

Each Trade Center exhibition is limited to one particular line of products and centers are located in Beirut, Buenos Aires, Frankfurt, London, Mexico City, Milan, Paris, Seoul, Singapore, Stockholm, Sydney, Taipei, Tehran, and Tokyo. For further information on the Trade Center shows described or for more facts on U.S. exhibitions, **write:** *Director, Office of International Marketing, Room 4015, U.S. Department of Commerce, Washington, D.C. 20230.*

U.S. specialized trade missions and technical seminars are comprised of groups of U.S. businessmen organized by the U.S. Department of Commerce to travel abroad to promote the export of U.S. goods and services produced by their particular industry. **Write:** *Trade Missions, Room 4219, U.S. Department of Commerce, Washington, D.C. 20230.*

Building Products and Construction Equipment. Stockholm and Paris Trade Centers, Oct. 28-31 and Nov. 5-8, respectively. Commerce is offering manufacturers and suppliers of building products and construction equipment a splendid opportunity to gain increased sales in France and Scandinavia by exhibiting at one or both of these shows. France, which has the fastest growing economy in Western Europe, and the Scandinavian countries of Sweden, Norway, Denmark, and Finland, offer bright prospects for sale of U.S. products in the building field. Call Andre Williams, 202-967-5373.

Materials Handling Equipment. Buenos Aires Trade Center. Nov. 4-8. Increased government funds for modernizing public enterprises and services and significant private industry investment are generating rapid growth in the Argentine market for materials handling equipment and systems. Sales are expected to grow at an average annual rate of 16 percent during 1974-77, totalling over $425 million for the period and exceeding $118 million in 1977. Lifting, loading, and conveying equipment accounts for most of Argentina's materials handling equipment imports; imports of this equipment are expected to total nearly $18 million in 1977, reflecting a 7.5 percent annual growth rate over the 1973 estimate of $13.5 million. Imports of industrial vehicles are expected to grow at an average annual rate of 9 percent, increasing from an estimated $2.2 million in 1973 to over $3 million in 1974. Call Vicky Eicher, 202-967-4463.

Food Processing & Packaging Equipment Technical Sales Seminar. Thailand, Indonesia, Malaysia. Nov. 9-26. Improving consumer tastes, expanding population and government backing make the outlook particularly bright for U.S. exports of food processing and packaging machinery to these three markets in the next few years. Equipment imports for improved processing of commodity exports and for domestic foodstuff consumption make technical information efforts in these countries a must for 1974. Call Wyn Coates, 202-967-5286.

Pharmaceutical Production Equipment Exhibition. Mexico City Trade Center. Nov. 11-15. Strongly expanding Mexican Government medical care programs as well as stricter controls in production and quality required from local laboratories offer good opportunities to U.S. suppliers of machinery, equipment and instrumentation used in the pharmaceutical industry. The U.S. share of total imports is about 70 percent and a majority of local needs must be imported. Call Mary Wiening, 202-967-5037.

Analytical Instruments and Systems for Scientific and Industrial Research. London Trade Center. Nov. 11-15. U.K. imports of analytical instrumentation now make up 40 percent of the $100 million market, and are expected to double by 1977. U.S. sales have increased from $7.6 million in 1971 to $12.7 million in 1973. Demand for new instruments—especially high-technology items—is being spurred at this time by problems of standardization and competition resulting from U.K. entry into the Common Market, by increasing concern with environmental problems, and by development of North Sea oil and gas fields. Products to be exhibited are chromatographic, spectroscopic, and high and low temperature research instruments, accessories and parts. Call Jim Lamont, 202-967-4541.

Industrial Process Controls and Instrumentation Equipment. Milan Trade Center. Nov. 13-19. High sales potential exists in Italy for process measuring and control instruments and systems for measuring, recording and controlling physical and chemical properties, such as temperature, pressure, vacuum fluid flow, liquid level, mechanical motion, humidity, density, combustion and chemical analysis. Control and regulator valves, servo mechanisms, process control computers and related products also rank high. This exhibition will run concurrently with BIAS, the large international automation and instrumentation show, on adjacent fair grounds. Call Sam Spaulding, 202-967-4508.

Audio-Visual Educational Aids Exhibition. Tehran Trade Center. Nov. 17-21. Market research points to a booming market in Iran for audio-visual educational materials during the next several years. The Iranian Fifth Development Plan (1973-77) calls for more than $6 billion to be spent on education.

Swaziland Invites Tenders For Transmission System Equipment

The Crown Agents for Overseas Governments and Administrations, on behalf of the Swaziland Electricity Board, invites firms to tender by June 28 for supply and delivery of the following equipment required for extensions to the existing 132/66Kv transmission system, to be funded by a loan from the African Development Bank: insulators, 132Kv and 66Kv; overhead line hardware; ACSR conductor; conductor fittings and accessories; galvanized stranded steel wire for earthing conductor and stays; oil circuit breakers, 132Kv and 66Kv, indoor control/relay cubicles, outdoor current and voltage transformers, earthing materials, control cables, tripping batteries and chargers; air-break isolators, 132Kv and 66Kv; surge diverters; steel supporting structures; transformers, 1 to 7.5 MVA, 66/11Kv and 66/3.3Kv, mobile insulating oil purifiers; power line carrier, control and protection equipment.

Applications for tender documents should be addressed to: The Crown Agents for Overseas Governments and Administrations, 4 Millbank, London S W 1P 3JD, quoting reference E1N/VARIOUSCS 4/09499 and indicating clearly which section is required.

Ten Countries, Regions Seek UNDP Assistance

Eight developing countries and two regional areas have submitted 17 preliminary requests for financial and technological assistance from the United Nations Development Program (UNDP). These requests have not yet been funded nor has an executing agency been designed to implement them. They are made available to U.S. firms as potential projects. U.S. firms are cautioned that these projects may not be approved, for technical and/or other reasons.

Interested U.S. firms may obtain individual summaries of these projects from John Malone, Office of Export Development, Room 1322, U.S. Department of Commerce, Washington, D.C. 20230. Please include a preaddressed label and identify each project desired by country, number and title.

BGD/72/005 — BANGLADESH — Development of forest research institute, Chittagong.

ECU/70/516 — ECUADOR — Faculty of agronomy and veterinary medicine, Guayaquil University.

ECU/72/018 — ECUADOR — Agro-industries.

INS/73/010 — INDONESIA — Strengthening of health services (Irian Jaya).

INS/73/015 — INDONESIA — Instructors in telecommunications installation and maintenance, Irian Jaya.

INS/73/023 — INDONESIA — Ship repair and maintenance, and establishment of navigational aids workshop in Sorong.

IRQ/73/006 — IRAQ — Forestry research, demonstration and training (Phase II).

KMR/72/011 — KHMER REPUBLIC — Assistance in preparation of educational reform.

LAO/73/015 — LAOS — Agricultural planning.

PAP/74/003—PAPUA NEW GUINEA — Strengthening national planning.

CEY/72/039 — SRI LANKA — Vector control.

RAS/72/054 — REGIONAL (Asia and the Far East) — Educational planning and facilities unit, regional office for education in Asia (RDEA), Bangkok, Thailand.

RAS/73/017 — REGIONAL (Asia and the Far East) — Assistance to least developed landlocked countries.

RAS/73/017 — REGIONAL (Asia and the Far East) — Multilateral Trade Negotiations.

REM/70/433—REGIONAL (Europe, Mediterranean and the Middle East)—Northwest African regional locust project.

REM/71/293—REGIONAL (Europe, Mediterranean and the Middle East) — Improvement and production of field food crops in the Near East and North Africa.

REM/72/047—REGIONAL (Europe, Mediterranean and the Middle East)—Near East animal production and health development center (NEADEC).

Costa Rica Land Report Offered

The U.S. Embassy in San Jose has prepared a report for U.S. citizens interested in acquisition of real estate property in Costa Rica. The report, General Information on Buying Costa Rican Land, contains such information as procedures for real estate transfer, purchasing of subdivided property, taxes, and Costa Rican land measurements. Copies may be obtained from the Foreign Investment Services Staff, Room 4021, U.S. Department of Commerce, Washington, D.C. 20230. P-74326. OPIC.

Licensing, Investment Abroad

Licensing and investment proposals from foreign firms are listed in these columns. Specific product interests in each proposal are highlighted in bold type to facilitate identification and each proposal is preceded by the appropriate four-digit product number taken from the Standard Industrial Classification (SIC) Manual.

Background information on opportunities abroad and assistance on overseas investments are available from the Foreign Investment Services Staff, U.S. Department of Commerce, Washington, D.C. 20230. "P" numbers should be used when responding to specific proposals.

WTDR indicates that a World Traders Data Report containing financial and background information on the foreign firm is available for $15 from the Export Information Division, Room 1313, U.S. Department of Commerce, Washington, D.C. 20230, or from any Commerce Office.

OPIC indicates that the country involved is eligible for investment insurance coverage written by the Overseas Private Investment Corporation. Information regarding applicable coverage may be obtained from OPIC, Washington, D.C. 20527.

BRAZIL — Foreign know-how, technical assistance and equity are desired by **agro-industrial complex.** Group manufactures and/or distributes following products: fertilizer; insecticides; seeds; grain silos; agricultural tractors, machinery and implements; trucks and automobiles; animal feeds. Firm is main supplier to farmers in northern Parana and southern Mato Grosso. Established in 1968, group employs 318. Foreign Investment Services Staff, Room 4021, U.S. Department of Commerce, Washington, D.C. 20230. P-74323. OPIC.

1541 — IRAN — Seeks joint venture for **construction of buildings which can be assembled on site for temporary use.** Structures could be dismantled and reassembled on another site. These buildings would be sold to Iranian military and construction and agricultural industries. Tolima Co., Inc., Eisenhower Ave., Tehran, Iran. WTDR. P-74318. OPIC.

1541 — JAMAICA — Major construction company seeks joint venture partners to participate in the **building of the Inverness Industrial City complex.** Financial, technical and managerial expertise is sought by Jamaican firm. Estimated cost of the project, which will be completed over a 10-year period, is between $500 and $600 million. Complex will include manufacturing facilities, warehouses, offices and housing with social and physical accessories for immediate support population. City will be on a 7,000 acre site southwest of Kingston. Area has access to five road and rail facilities and is close to developed ports in Portland Bight. Several industrial projects planned for city are an aluminum rolling mill, a cement plant and a fish cannery. Jamaican company carries out heavy construction projects and land development. S. Joseph Williams, Wilbros Ltd., 45-47 Dunrobin Ave., Kingston 10, Jamaica. WTDR. P-74308. OPIC. Details available from Foreign Investment Services Staff, Room 4021, U.S. Department of Commerce, Washington, D.C. 20230. OPIC.

2033 — TAIWAN — A leading candy and confectionery manufacturer is seeking a licensing arrangement to produce quality **fruit juice.** Total investment of U.S. $20 million has been slated for production of 10 million dozen cans and bottles of juice annually. Seventy-five percent of production will be for domestic market. Foreign Investment Services Staff, Room 4021, U.S. Department of Commerce, Washington, D.C. 20230. P-74317. OPIC.

2099 — INDIA — U.S. equity, know-how and equipment are sought to produce **instant tea from black leaves.** Production capacity of the facility would be 400 tons annually. Plant will be located in Coonoor, Tamil Nadu State. Output of plant is to be exported. Established in 1947, firm produces 1 million kilograms a year of finished green and black tea under licensing agreement with a Swiss company. It employs 50 workers and has annual sales of about $800,000. J. V. Chandrasekhara, "Girija," Woodcote Estate, Coonoor 2, India. WTDR. P-74306. OPIC.

2819 — INDIA — Seeks know-how to manufacture **copper sulfate from copper ore.** Also willing to import U.S. machinery for the project. Planned production is 1,000 tons per year. Firm currently produces copper sulfate from copper scrap. Jayraj Mehta, Deepak Insulated Cable Corporation Ltd. (DICC), 8th Mile Bangalore-Tumkur Road, Dasarahalli, Bangalore 562139, India. P-74322. OPIC.

2834 — SWITZERLAND — Seeks licenses to produce following types of pharmaceuticals: **quick acting disinfecting compounds, and specialties with a combined disinfecting-healing effect, both used for dental treatments; and prescription free tranquillizers alone or in combination with other specialties such as those used for prevention of travel sickness.** Firm is small manufacturer of non-prescription medications such as tranquilizers, pain relievers and treatments for digestive disorders. Located in new plant with modern equipment. Marketing organization covers Switzerland and Benelux countries. Mr. Singer, President, Pharma Singer AG, Niederurnen, Switzerland. P-74316.

3069 — SWITZERLAND — Seeks technical know-how and collaboration with U.S. firm to produce variety of rubber products including items such as **molded rubber goods for the building, machinery, appliance, electrical and vehicle industries; technical rubber items such as seals, hose couplings and mechanical products; and rubber shoe products.** Firm produces these items and is planning to expand. For the name and address of this firm, write Foreign Investment Services Staff, Room 4021, U.S. Department of Commerce, Washington, D.C. 20230. WTDR. P-74310.

3241 — NIGERIA — Seeks technical assistance for construction of large-scale **cement production facility** in the Mid-Western State of Nigeria. Firm is able to furnish local capital and secure abundant limestone resources. Plant is to be constructed on the Amlle land in the Mid-Western State. A ten-square-mile section, within 35 miles of Benin City, also is included. Company has developed a 600 employee truck, bus and forklift assembly and service organization for Chrysler, Hino and Marcopolo. Firm has branch offices at Aba, Enugu, Ibadan, Ilorin, Jos, Kano, Lagos and Port Harcourt, with agents and distributors in other major cities. Chief Gabruel Igbinedion, Managing Director. Mid Motors Nigerian Co., Ltd., Plot 21-22 Iganmu Estate, P.O. Box 2212, Lagos, Nigeria. WTDR. P-74325.

3292 — IRAN — Firm seeks turnkey arrangement with an American concern to establish an **asbestos tile making factory.** Proposed factory is to be constructed on a 25,000 square-meter land in Shiraz. Monthly production would be 50,000-100,000 square-meters. Tiles will be sold locally with some exported to the Trucial Coast. Firm is capable of providing up to $500,000 toward cost of project. Additional capital to be supplied by American partner. Dariyoush Gholami, Managing Director, Pars Decor Co., Khiaban Ghashrodasht #83, Shiraz, Iran. WTDR. P-74324. OPIC.

3312 — KOREA — Seeks joint venture to manufacture **13 percent chrome stainless steel sheets.** Needs technical know-how and capital. According to Korean firm, import of stainless steel sheets for flatware industry will reach 20,000 metric tons by 1975. Company proposes study to determine feasibility of building mill to produce 50,000 metric tons annually. Korean concern presently manufactures stainless steel flatware; an affiliate is the country's leading asbestos cement tile producer. Hichull Kim, President, Tong Yang Moolsan Co., Ltd., I.P.O. Box 2270, Seoul, Korea. WTDR. P-74327. OPIC.

3400 — SWITZERLAND — Medium size manufacturer of special tools for the do-it-yourself market and commercial use seeks to expand. Firm wants licenses to produce **electrical and hand operated tools (sawing, boring, milling and polishing) for sale through do-it-yourself centers, hardware stores and similar outlets; hand operated and power driven gardening tools for home gardeners; mechanical and power driven kitchen appliances such as fruit squeezers, mixers and similar items; and automatic equipment for industrial high frequency hardening of metal.** Firm is well established in European do-it-yourself market. Produces cutting heads and metal hardening machines. Operations are located in new plant. Werner Fleig, President, Grag, Hauptstr. 144, 4416 Bubendorf, Switzerland. P-74329.

3559 — SWITZERLAND — Seeks licenses and processes to produce equipment for **solid waste recirculation to include operations such as sorting of glass and metal before incineration; treatment and incineration of slag which cannot be handled under normal processes;** and **production of energy from solid waste.** Firm is involved in solid waste incineration and disposal of special industrial wastes. It has developed novel types of combined waste incineration plants which have found excellent acceptance throughout Europe. It cooperates closely with a large German concern which has major production facilities. W. E. Meier, Ofenbau- und Feuerungstechnik AG, Dufourstr. 90, 8034 Zurich. P-74315.

3559 — UNITED KINGDOM — Manufacturer of machinery for automotive tire industry wants to expand. Seeks license or joint venture to produce equipment for **petrochemical industry such as pumps, valves and compressors.** Firm is prepared to manufacture, sell and service a suitable product. Has a subsidiary with an alloy steel foundry and production facilities with 81,000 sq. ft. Employs about 500. J. Goodwin, Chairman & Man. Director, R. Goodwin & Sons (Engineers) Ltd., Ivy House Foundry, Hanley, Stoke-on-Trent ST1 3NR, England. P-74314.

3566 — INDIA — Seeks license to manufacture **fluid couplings and torque converters with a range of 10 hp. to 2,500 hp. and speed from 1,000 rpm to 5,000 rpm.** Firm plans to produce total of 500 fluid couplings and torque converters annually which will be sold at $3,300 per unit. According to company, 99 percent of India's demand for these products is being met through imports. Company makes industrial, chemical and deepwell turbine pumps. It belongs to a manufacturing group. R. Vijayakumar, General Manager, Sri Ramakrishna Engineering Industries (CBE) Private Ltd., 1/131 Sarojini Naidu St., Sidhapur, P. N. Palayam, Coimbatore 641018, India. WTDR. P-74311. OPIC.

3569 — JAPAN — Seeks manufacturing rights for **packaging systems, advanced technology for packing automotive knockdown parts.** Parts are shipped to firm's assembly plants abroad. Company is currently packing these parts by hand using wrapping paper and hardboard boxes. Reportedly the world's third largest motor vehicle manufacturer, it produced over 2 million vehicles in 1973. Hideyo Tamura, Associate Director, Export and Overseas Operations, Toyota Motor Co., Ltd., 1 Toyota-Cho, Toyota City 471, Japan. P-74320.

3569 — SWITZERLAND — Seeks license or representation agreement to **manufacture garbage collection systems.** Is interested in system consisting of hydraulic garbage compacting device, garbage container and unit for emptying refuse which can be installed on trucks or other vehicles. Company believes there is a market in Switzerland and other European countries. It is experienced in production of hydraulic equipment and industrial materials handling systems. Firm presently manufactures cranes. Mr. Bachmann, President, Bachmann AG, 8222 Beringen, Switzerland. P-74328.

3573 — SWITZERLAND — Seeks manufacturing rights for **input and output terminals for EDP systems, compatible with most commonly used computers; related printers; and digital data display units for commercial and industrial applications.** Swiss firm has just completed development of novel floppy disc system which is compatible with most EDP equipment. Specializes in R&D for new, custom made EDP devices. K. J. Sherry and J. G. de Leeuwe, Mikro-Computer Systeme AG, Tellstr. 31, 8004 Zurich, Switzerland. P-74313.

3592 — INDIA — Seeks license to manufacture **automotive engine valves.** Plans call for establishing plant at Aurangabad, Maharashta State, to produce one million engine valves annually. Basic raw materials, water supply and electricity are available locally. Firm presently produces electrically measuring instruments; other affiliates make transformers and potentiometers. Director of Indian company plans to visit United States in June. L. R. Dhoot, care of N. Malani, 4827 Jackson St., Trenton, Mich. 48183. Indian firm is Industrial Meters Private Ltd. (IMPL), Advent, 12-A Foreshore Road, Bombay 400 021, India. WTDR. P-74307. OPIC.

3613 — INDIA — Manufacturing rights for **relays used in the control and protection of electrical circuits.** Interests include voltage, power and frequency measuring relays, a.c. and d.c. current and voltage operated control and auxiliary relays. Also prepared to purchase necessary machinery and equipment. Plans to produce about 15,000 relays annually on single shift basis. Firm will make initial investment of over $1.1 million. Company makes insulated wire and power transmission cable, is a leading producer of enameled copper wire, owns a strip rolling mill. Jayraj Mehta, Deepak Insulated Cable Corp., Ltd. (DICC), 8th Mile Bangalore-Tumkur Road, Dasarahalli, Bangalore 562139, India. P-74312. OPIC.

3641 — MAURITIUS — A major trading company seeks joint venture or license to manufacture **electric light bulbs.** Plans call for production of between 2 and 3 million bulbs annually. Firm is prepared to purchase necessary machinery, and can contribute financing for proposed project. Enterprise would qualify for a number of government investment incentives. Port Louis company is involved in textile manufacturing, sugar refining and varied trading activities. It reports annual sales of $20 million. Ellias H. Zackaria, Managing Director, Zackaria & Brothers, 1st Floor, 15, Farquhar St., P.O. Box 353, Port Louis, Mauritius. P-74309. OPIC.

7011 — TURKEY — A family which owns 50,000 square meters of choice property overlooking the Bosporus seeks a joint venture with a U.S. **hotel firm.** U.S. firm would be given management and design control and at least 51 percent interest if desired. Ekrem Barlas, Dr. Vali Resit Caddesi 27/3, Cankaya, Ankara, Turkey. P-74321. OPIC.

7011 — YUGOSLAVIA — Officials of Montenegro tourist organization desire joint venture with U.S. firms prepared to develop **U.S. style hotel facilities** at Sveti Stefan and Ulcinj on Adriatic coast. A 600-bed hotel estimated to cost $8 million is contemplated at Sveti Stefan; no specific plans have, as yet, been prepared for Ulcinj. Hotel equipment is also needed for new tourist complex at Jaz, composed of a hotel, vacation village and tourist bungalows. Miso Brailo, Deputy General Director, Montenegro Turist, 81310 Budva, Yugoslavia. P-74319. OPIC.

U.S. Oil Equipment Firms Establish Plants In Scotland

A number of U.S. petroleum equipment companies have established production facilities in Scotland to serve firms engaged in North Sea oil exploration, according to a recent report from the U.S. Embassy in London. The American firms have either established manufacturing and sales subsidiaries or entered into joint ventures with U.K. concerns. There are also numerous sales and servicing joint ventures.

In view of changing British Government policies toward exploration of North Sea oil and gas, it is expected that this trend to establish subsidiaries and joint ventures will most likely accelerate. U.S. manufacturers of oilfield equipment may wish to study this approach as a means for participating in the North Sea market. Write: Foreign Investment Services Staff, Room 4021, U.S. Department of Commerce, Washington, D.C. 20230. P-74304.

Canada's Athabasca Tar Sands Development Plans Described

The U.S. Consulate in Calgary has prepared a 43-page report describing the existing and planned development of Alberta's Athabasca Tar Sands. The paper includes a discussion of the petroleum reserves, the various production methods, Canadian policies and regulations, projected investment requirements, and implications for U.S. business. For a copy, write: Foreign Market Reports Unit, Room 1033, U.S. Department of Commerce, Washington, D.C. 20230, specifying DIB 74-06-050. P-74302.

Licensing In U.S.

For additional information on these opportunities to manufacture foreign firms' products in the U.S. under a licensing agreement or in partnership, write the Investment Services Staff, Bureau of International Commerce, Room 4020, U.S. Department of Commerce, Washington, D.C. 20230 (202-967-2248), referring to the appropriate file number.

GERMANY — A license is being offered by a German firm for the manufacture in the United States of **wrapping and packaging products and folding boxes from corrugated paperboard materials. File 2584**

GERMANY — A large German company, which markets its products throughout the world, is interested in granting licenses to U.S. manufacturers for its entire product line: **commercial vehicles and automotive engines, marine propulsion units, printing machinery, mechanical and steel structures, pumps and mixers, and lifts and escalators. File 2585**

GERMANY—A U.S. manufacturing licensee is being sought by a German firm for a **process to expand plastic tubing** such as rigid PVC, high density polyethylene, polystyrene, and acrylics. Through this process round hollow tubes can be molded into an endless variety of products, such as vases, bowls, flowerpots, umbrella stands, laundry baskets, and technical containers. **File 2586**

GERMANY — A German firm wishes to locate a U.S. licensee for production of its compact **concrete preparation machines.** These units combine all equipment necessary to produce high quality concrete, are easily transported and quickly assembled, and eliminate pits and other labor intensive preparations. The units can be combined with ground stockpile, verticle overhead, or adjacent mounted storage bins. **File 2587**

GERMANY — A German distributor and agent for various types of textile machinery is offering its **scanning devices for textile machinery** to a U.S. manufacturer under license. These devices contain comparative photo-optical units that differentiate changes in color, light penetration, and fabric density. This new technique provides far accurate, false-stop-free detection of fabric faults in jacquards, blisters, ribs, and other types of knit construction. **File 2588**

New Report Covers Industrial Development in Johor, Malaysia

A recent report by the U.S. Embassy in Kuala Lumpur reviews industrial development in Johor State. The report covers current activities at the Pasir Gudang industrial estate and facilities of the Johor port, also at Pasir Gudang. The State of Johor occupies about 7,330 square miles and has a population of about 1.3 million. It is Malaysia's leading producer of rubber, oil palm and pineapples. U.S. companies engaged in medium to heavy capital intensive industries may wish to explore the potential for locating their manufacturing operations in Johor State. For a copy of the report, write: Foreign Market Reports Unit, Room 1033, U.S. Department of Commerce, Washington, D.C. 20230, referring to DIB No. 74-06-077. P-74303. OPIC.

Foreign Trade Opportunities

These trade opportunities are based on reports received from the U.S. Foreign Service by the Trade Opportunities Division, Room 1322, U.S. Department of Commerce, Washington, D.C. 20230. The commodities in which foreign firms have interest are indicated by the five-digit numbers and commodity classifications which are from the Standard Industrial Classification (SIC) Manual and the Numerical List of Manufactured Products, 1967 Census of Manufactures.

U.S. firms should be aware that the listing in Commerce Today *of opportunities to trade in specific commodities and technical data does not necessarily imply approval of their export by the Department of Commerce pursuant to the Export Administration Act of 1969. Applicable export licensing regulations must be followed.*

Every effort is made to include only traders with good reputations. However, the Department cannot be responsible for any trade relations.

Abbreviations used are: I (importer); D (distributor); M (manufacturer); A (agent); R (retailer). To avoid delays, requests for loan material must specify country, commodity, foreign government agency.

WTDR indicates that a World Traders Data Report on this specific firm is available at $15 from the Export Information Division, Room 1313, U.S. Department of Commerce, Washington, D.C. 20230. A WTDR is a trade profile which contains commercial information, including financial references, on an individual foreign firm. Orders must include complete name and address of the subject firm and be accompanied by payment. Further information concerning WTDRs and request forms are available at each Commerce District Office.

Direct Sales

Foreign enterprises are interested in direct purchases of these products. See also "Representations" listings.

Building Construction

15100—NIGERIA—Firm seeks U.S. construction company partner to participate in tender to act as comprehensive general contractor for building 528-bed general hospital at Maiduguri, an estimated $20 million project. The firm, Shinco Nigeria Ltd., P. O. Box 924, Kano or P. O. Box 137, Maiduguri (cable: SHINCO; telephone: 4127, Kana; 2286, Maiduguri), has been prequalified to tender for this project. Shinco would expect to handle civil construction phase, and the U.S. firm, the mechanical, electrical and specialized hospital construction. Mr. M. A. J. Zabadne, Managing Director, is prepared to come to U.S. for personal consultations/discussions with interested partner. Design for the project has been completed by John Harris Architects, 25 Devonshire Place, London WIN. 2GX. Bid-letting authority is the Co-ordinator, Specialist Hospital Action Committee, c/o Economic Planning and Political Division, Military Governor's Office, Maiduguri, North Eastern State, Nigeria.

Construction

●**16100—PANAMA**—Bids are invited for construction of a 43-mile section of the Inter-American Highway from Bayano River Bridge (near completion) to a point near the Canazas River in Panama (Darien Gap Highway Project No. 4). Estimated value of the project is $19 to $23 million. Bid deadline is July 30, and approximate contract award date is September. June 1978 is work completion target date. Two-thirds of the project will be financed by U.S. Government and one-third by Panama. Roadbed will be 10 meters wide, with 20 centimeters gravel sub-base and surface gravel. Materials and water will be available locally. Of the 15 bridges, most will be prestressed beam, concrete deck. One of the larger bridges will have a 180-ft. welded plate girder center span. Bidders are invited to a meeting June 25 at the office of the Ministerio de Obras Publicas, Carretera Panamericana (Box 1632), Panama, for a seminar on the project. Preliminary information is available at the office of Carretera Panamericana, Avenida Mexico y Calle Este, Ed. la Guarantia, Panama. Plans, specifications and instructions are available for $400 from this office. Interested firms may examine copies of documents at the U.S. Department of Transportation, Room 324, Nassif Bldg., 400 7th St., NW, Washington, D. C. 20591.

Heavy construction

●**16200 — CHILE** — Construction and paving of four roads of approx. 61 kilometers total length. Tender reference number is B.I.R.F. 688-CH. Roads, lengths, and bid deadlines are as follows: Loncomilla—Purapel, 16 kms., Oct. 1; Constitutcion—Purapel, 31 kms., Oct. 1; Autopisia Santiago—San Antonio, 13 kms., Mar. 1, 1975; and Autopisia Santiago—San Antonio, 1 km., Mar. 1, 1975. The bid-letting authority is: Unidad de Proyecto B.I.R.F., Direccion de Vialidad, Ministerio de Obras Publicas y Transportes, Mora de 59, 3 Piso, Oficina 10, Santigo, Chile. Copies of specifications are available from the Construction & Bldg. Materials Program, Room 2118, U.S. Dept. of Commerce, Washington, D.C. 20230 (telephone: 202-967-3602), and the U.S. Dept. of Commerce District Office, 11444 Federal Bldg., 450 Golden Gate Ave., P.O. Box 36013, San Francisco, Calif. 94102 (telephone: 415-556-5864).

●**16200 — NICARAGUA** — Bids are requested for supply and complete installation of a 230-Kv. transmission line, length 134 miles, interconnecting Nicaraguan and Honduran electrical transmission systems. Only turnkey offers accepted. Project name is SUYAPA and tender number is 201. Bid deadline is July 30. Bid documents are available for US$200 from Expresa Nacional de Luz y Fuerza, Apartado Postal 55, Managua, Nicaragua; from its Honduran counterpart, the Empresa Nacional de Energia Electrica, in Tegucigalpa; and from the consulting engineers, ELC-Electroconsultant, Milan, Italy. Documents may also be reviewed at the Nicaraguan and Honduran Embassies in Washington, D.C., Tokyo, and Bonn, and at Consulates in New York City. Project financed in part by World Bank and Central American Bank for Economic Integration. Bid offers must be valid for 150 days.

Public building, related furniture

●**25300—SUDAN**—Khalil Mhammed Ali, Project Mgr., Sudan Education Project, Ministry of Education, P.O. Box 284, Khartoum, has issued tender SEP 3, for school furniture consisting of: laboratory stools, folding chairs, chair with tablet arms and various kinds of chairs, desk double pupil, desk typist, desk staff wardrobes, cupboards, shelves and tables of various kinds, bunk beds and beds, library book shelves, filing cabinets, etc. Bid deadline is Aug. 25, Project financed by IDA. Specifications and documents can be purchased for LS 3.000 ($7.54) airmail from above address.

Industrial chemicals

●**28100 — COLOMBIA** — Aluminum sulfate, 2,500 tons, to be used for treating water at Medellin Aqueduct. Tender No. DC-34/V/74. Bid deadline June 28. Bids should be submitted to Gorencia De Operaciones, Empressas Publicas De Medellin, Edificio Miguel De Aguinaga, Oficina 607, Medellin, Colombia. Terms and specifications will be available from Chemicals and Rubber Program, Materials Division, BDC 458, U.S. Department of Commerce, Washington, D.C. 20230 (telephone 202-967-3468).

Drugs

28300-28400 — SURINAM — Pan American General Store, Governeurstraat 68, P.O. Box 41, Nieuw Nickerie, Nickerie, Surinam, is seeking supplies for its patent medicine and cosmetics department. The owner, Mohamed Ajoeb Chiragali, desires CIF quotations on all low-priced lines of drugstore products, including cough remedies, vitamins, tonics, vermifuges, digestion aids, diet pills, hay fever remedies, aspirin, insect repellants, cosmetics, hair colorings and hair sprays. He would also welcome promotional material. Pan American General Store is a medium-sized general merchandise importer, wholesaler and retailer, with annual turnover of about $90,000. As head of the local Muslim community, Mr. Ajoeb is an important and respected figure in Nieuw Nickerie.

Steel mill products

●**33100 — FIJI** — Various quantities and sizes of galvanized steel sheets. Tender No. 81/74; bid deadline July 1. B.W.B. Tagilala, Controller of Government Supplies, P.O. Box 26, Suva, Fiji. Specifications available from Iron and Steel Program, BDC, U.S. Department of Commerce, Washington, D.C. 20230, phone 202-967-2438.

Rolling, drawing, extruding of nonferrous metals

3353351 — JAPAN — Plain aluminum foil, 12 in. by 25 ft., regular, Wear-Ever brand, or equal; 500 cases. Quote c & f Naha, Okinawa. Buyer est. annual sales at about 2,500 cases. Marketing territory is Okinawa (pop. 1.3 million). Reply to—Mr. E. Sakihara, Pres., Saki Trading Co., P.O. Box 120, Urasoe, Okinawa. Cable: Saki Urasoe, Japan, Tel: 0988-772508. Direct sale & rep.

Office, computing, accounting machines

●**35700—IRAQ**—The State Company for the Importation and Distribution of Precision Instruments, P.O. Box 5674, Baghdad, has issued a tender for standard size and extra-wide keyboard manual and electric office typewriters with Arabic language

keyboard and type. Upon receipt of company catalogs and price lists, importer plans to place trial order for 1,000 machines.

Electric transmission, distribution equipment

●**36100 — VIETNAM** — Supply of miscellaneous equipment for expansion of Saigon transmission and distribution system. Equipment and materials include: 1,950 each 100 kva and below, pole-top transformers; 56 each 500 kva, 750 kva and 1,000 kva substation transformers; 3 each power transformers; 410 each 15 kva current transformers; pole line and transmission hardware; non-current carrying wiring devices; 20,000 each single phase watthour meters; 80 each 3-phase watthour demand meters; mercury and high intensity discharge type street luminaries; 474 creosoted wooden poles; 69 kv switchgear; ASCR power cable; 600 volt multiplex cable; URD power cable and polyethylene insulated telephone cable. Tender No. 350/I; bid deadline July 15. Bids may cover part or all of the requirements. Vietnam Power Co., Logistics Dept., 72 Hai Ba Trung St., Saigon 1. A copy of documents and specifications is available for review only, not for loan, in Transportation & Capital Equipment Division, Room 2806, BDC, U.S. Dept. of Commerce, Washington, D.C. 20230. Tender documents may be obtained upon written request accompanied by nonrefundable certified check for $75 from Vietnam Power Co. Project financed by Asian Development Bank Loan No. 108-VIE(SF).

Communications equipment

●**36600 — AFGHANISTAN** — Eng. S.M.N. Alawi, President, Telephone & Telegraph Dept., Ministry of Communications, Republic of Afghanistan, Kabul, has issued tender No. 409 for one PABX exchange of 5 main lines and 25 extension lines. Give price in U.S. dollars. Offer valid for six months CIF Kabul. Financed from general revenue.

●**36600 — ALGERIA** — The Direction des Transmissions Nationales, Ministere de l'Interieur, Palais du Gouvernment, Algiers, has issued tender No. 1-74 DTN, for radio communications equipment: lot 1: 200 receivers; lot 2: 75 2 kw transmitters; lot 3: 12 1 kw transmitters; lot 4: 2 kw transmitters. Bid deadline June 29. Offers to remain valid 90 days past bid deadline and offers acceptable for one or more lots. Correspondence and offers in French required. Copies of tender announcement and specifications available on a short-term loan basis to firms located in the U.S. from the Science & Electronics Div., BDC-466, Room 1003, U.S. Dept. of Commerce, Washington, D. C., telephone 202—967-2939.

36600 — CYPRUS — Rogiros Michaelides, Telecommunications Officer, Ministry of Communications and Works, Nicosia, has issued an announcement for supply and installation at Nicosia International Airport of arrival and departure board equipment such as electromechanical systems, together with associated control equipment and gate indicators. In association with the above a closed circuit television system should also be installed. Tender will be issued in about 2 months. Project financed by the Government of Cyprus.

36600—ECUADOR—Lt. Col. M. Dougherty, U.S. Army, Inter-American Geodetic Survey (IAGS) c/o American Embassy, Quito, Ecuador has issued an announcement for the purchase of 20 transistor radios, 6 ground mobile transceivers and transmitters, 10 radios, 59 stereoscopes for air photo use, 100 signaling mirrors, 10 snow glasses, 20 surveying instruments, 20 pairs binoculars. Buyer is Ecuadorean Military Geographic Institute, which has made special request for U.S.-origin equipment to IAGS. Correspondence in Spanish.

●**36600 — EGYPT** — The Suez Canal Authority, Procurement Dept., NASR City, Cairo, has issued tender No. 150/26-90/1/2253/25 for supply, delivery and supervision of installation of a 960-channel radio relay system on a micro-wave radio link, and a 24-channel UHF junction radio relay system. Bid deadline July 15. Offers should be on FOB basis, while freight and insurance to Alexandria, Egypt should be indicated separately. Copies of tender announcement and specifications available on a short-term loan basis to firms located in the U.S. from Science & Electronics Division, BDC-466, Room 1003, U.S. Dept. of Commerce, Washington, D.C. 20230, telephone 202-967-2939.

●**36600 — ETHIOPIA** — Mr. Betru Admassie, General Manager, Imperial Board of Telecommunications of Ethiopia, P.O. Box 1047, Addis Ababa, has issued tender No. 7/74 for CCITT and high frequency channel and rural open wire carrier systems. Bid deadline June 28. Project financed by IDA. Copies of tender announcement and specifications available on short-term loan basis to firms located in U.S. from Science & Electronics Div., BDC-466, Room 1003, U.S. Dept. of Commerce, Washington, D. C. 20230, telephone 202-967-2939.

●**36600 — GREECE** — The Hellenic Telecommunications Organization, 6 Klissovis Street, Athens, has issued tender No. 7084 for supply of accessories and parts for PBX's. Bid deadline June 28. Purchase financed from agency's budget. Copies of tender announcement and specifications available on short-term loan basis to firms located in U.S. from Science & Electronics Div., BDC-466, Room 1003, U.S. Dept. of Commerce, Washington, D. C. 20230, telephone 202-967-2939.

●**36600 — GREECE** — The Ministry of Commerce, General Directorate of State Supplies, Directorate 4th, 20 Canningos St., Athens, has issued tender No. 547/1974 for supply of 30 base transceivers MHF/FM 146-174 MHZ for the Greek Coast Guard. Bid deadline June 28. Purchase financed from Greek Government budget. Copies of tender announcement and specifications available on short-term loan basis to firms located in U.S. from Science & Electronics Div., BDC-466, Room 1003, U.S. Dept. of Commerce, Washington, D. C. 20230, telephone 202-967-2939.

●**36600 — INDIA** — The Director General, Posts and Telegraphs Directorate (MMD Section), Ministry of Communications, Dak Tar Bhawan, Parliment St., New Delhi 110001, has issued tender No. 12-43/74-MMD for 5000 magnet desk telephone sets. Bid deadline July 7. Purchase against IDA financing. Documents available for $2.74 per set from the Asst. Director General (Imports), Room 514, above address by sending crossed demand draft in favor of Accounts Officer (C & A), Office of the Director General, Posts and Telegraphs, New Delhi, or on short-term loan basis to firms located in U.S. from Science & Electronics Div., BDC-466, Room 1003, U.S. Dept. of Commerce, Washington, D. C. 20230, telephone 202-967-2939.

●**36600 — IRELAND** — The Department of Posts and Telegraphs, Contracts Section, Marlborough St., Dublin 1, has issued tender No. C/610/6/26 Specification No. 4/74, for supply and installation of a P.A.B.X. for the Department of Labor, Annesley House, Mespil Rd., Dublin 4. Bid deadline June 26. Project financed with central government funds. Copies of tender announcement and specifications available on short-term loan basis to firms located in U.S. from Science & Electronics Div., BDC-466, Room 1003, U.S. Dept. of Commerce, Washington, D. C. 20230, telephone 202-967-2939.

●**36600 — IRELAND** — The Dept. of Posts and Telegraph (Engineering Branch), Marlborough St., Dublin 1, has issued tender No. C/610/25/6 for supply and installation of automatic telephone exchanges in Letterkenny, Lifford, Ramelton and Buncrana Charge groups. Bid deadline June 26. Copies of tender announcement and specifications available on short-term loan basis to firms located in U.S. from Science & Electronics Div., BDC-466, Room 1003, U.S. Dept. of Commerce, Washington, D. C. 20230, telephone 202-967-2939.

●**36600 — IRELAND** — The Building Unit, Department of Education, Marlborough St., Dublin 1, has issued a tender for supply and delivery of equipment required for following departments in the regional technical college, Cork; administrative offices, commerce, typing and general studies, catering, printing, automobile engineering, electrical and electronic engineering, marine engineering, science. Bid deadline July 22. Project financed by loan from International Bank for Reconstruction and Development. Tender documents available from above address on payment of 25 pounds sterling which will be refunded on receipt of a bona fide tender. Applicants should indicate type of equipment for which they would be tending when applying for tender documents.

Railroad equipment

●**37400 — BURMA** — Supply of 61 passenger coaches. Tender no. BRCGJIDA/12(T) 59(M)74-75. Bid deadline July 15. Financing by IDA credit. Managing Director, Burma Railways Corporation, Bogyoke Aung San Street, Rangoon, Burma. Copy of tender documents available for review in Transportation and Capital Equipment Division, BDC Room 1128, Department of Commerce, Washington, D.C. 20230.

Instruments for measurement, analysis and control

●**38200 — BAHRAIN** — The Director, Administrative Affairs, Electricity Directorate, P.O. Box 2, Bahrain has issued a tender for 600 house service pattern polyphase kilowatthour meters rated 30 (90) AMPs. Bid deadline June 29. More detailed information available to firms located in U.S. from Science & Electronics Div., BDC-466, Room 1003, U.S. Dept. of Commerce, Washington, D. C. 20230, telephone 202-967-2939.

●**38200 — INDIA** — The Superintending Engineer (T), Headquarters Office, Orissa State Elect. Board, Bhubaneswar — 751 007, Irissa, India, has issued tender No. CDN/ENQ/179 for testing equipment for transmission project. Bid deadline Aug. 23. Financed by World Bank Loan/Free Resources. Tender documents available from above address for $6.80 by demand draft drawn on any scheduled Indian Bank payable at Bhubaneswar, in favor of "Assistant Secretary (Accounts) Orissa State Elect. Board."

●**38200 — INDIA** — B. P. N. Mukherjee, Jr. Executive (Purchase), Heavy Machine Tools Plant, Heavy Engineering Corporation Ltd., Bhurwa, Ranchi — 4, Bihar, India has issued tender No. PUR/HTP, 2400015/74-2462 for 3 axis inspection/measuring machine, for measurement of all linear dimentions, etc. The machine is to be provided with all normal/standard and special ac-

cessories, and in metric system. Bid deadline June 30. Copies of tender announcement and specifications available on short-term loan basis to firms located in U.S. from Science & Electronics Div., BDC-466, Room 1003, U.S. Dept. of Commerce, Washington, D. C. 20230, telephone 202-967-2939, when received.

●**38200 — PERU** — The Empresas Electricas Asociadas, P.O. Box 1384, Conde de Superunda 261, Of. 313, Lima 1, Peru has issued a tender for 27,000 single-phase electric energy measuring devices (meters) induction type, with w current coils, for use in distribution networks with shielded neutral; 32,000 single-phase electric energy measuring meters induction type, with one current coil, for use in distribution networks with grounded neutral. Bid deadline July 8. Copies of tender documents available on short-term loan basis to firms located in U.S. from Science & Electronics Div., BDC-466, Room 1003, U.S. Dept. of Commerce, Washington, D. C. 20230, telephone 202-967-2939.

●**38200 — SOUTH AFRICA** — M. C. Van Heerden, Head, Capital Buying, South African Iron and Steel Industrial Corp. Ltd., P.O. Box 450, Pretoria, Republic of South Africa, has issued tender No. Enquiry V250, for supply, design, manufacture, inspection, testing, packing, forwarding and delivery to site one central metering center ("Energy Control Ce Ter") which shall indicate and record service conditions of the following systems: electrical distribution; coke over gas; blast furnace gas; industrial gas; liquid petroleum gas; HNX gas (protective atmosphere gas); fuel oil; steam; oxygen; nitrogen; air; industrial water; domestic water. Bid deadline July 9. Project financed out of corporation's own financial reserve, fully guaranteed by South African Government. Specifications and plans available for deposit of R100 ($150) at above address and may be reviewed there.

Photographic equipment, supplies

3861564 — GERMANY — Graphic arts film with following specifications: panchromatic, polyester coated, 1.06-1.30 meters wide, rolls of 20-50 meters. Mr. Birstein, Mgr., H. A. Braun & Co., Frankfurter Strasse 145, 6079 Sprendlingen, tel: 06103/68432.

Wholesalers

50930 — ITALY — Waste paper; value $1,000,000 approx. Buyer is wholesaler of waste paper interested in importing all types of waste paper from U.S. Pierino Sozzi, Via Salvanesco 57, Milano.

Motion picture production, distribution

78130 — TURKEY — 16mm black and white and/or color films on following subjects: water purification (sterilization of used water), modern sewage installations & re-use of remnants, infectious diseases (cholera, measles, scarlet fever, typhoid fever, small pox), training of nurses & midwives at clinic, birth control, births, child care (pre & after birth), embryo, environmental health in urban & rural areas (measures taken by state agencies & municipalities), food control, air pollution & ways of controlling it, population planning, microbes (analysis by electromicroscope), diabetes. Interested U.S. suppliers requested to submit available inventories, number of films on each subject, length, & also advise buyer whether negatives may be provided & possibility of insertion of magnetic bands on slides of films. Mr. Nihat Serdaroglu, Permodid Ltd., Sti., Kucuk Tunel Han, Ilk Belediye Cad., Tunel, Istanbul.

Representations

Foreign private firms are interested in agency agreements and/or distributorships for these products.

Metal stampings

34629 — SWEDEN — Forgings—alloy steel, stainless steel, carbon steel. Piece weight up to 100 mt. Kurt Persson, Stena Metall AB, Box 2507, S-403 17 Goteborg 2. Cable Stenametall. Telex: 2388 Stena S, tel: 031/17 35 40.

3497359 — FRANCE — Metallic stamping foils. End-users are mainly printing firms. Mr. Alan R. Carey, Societe D'Exploitation Des Etablissements Carey, Amfreville S/Iton, 27400 Louviers.

Machinery

3599498 — SWEDEN — Machines for flooding, resurfacing & maintenance of ice hockey rinks. Reply to—Mr. Harry Karlsson, Pres., Harry Karlsson Bil AB, Friggagatan 12, S-411 01 Goteborg. Telex: 064carxn s.; Tel: 031/80 04 40.

Motion picture production, distribution

78130—78150—73920—UNITED KINGDOM — Management education material including 16MM film, audio and video cassettes, audio visual aids, still and slide films for management education; management education books. Seeks world wide representation. Reply to: Kevin Christie, EMI Special Films Unit, Dean House, 7 Soho Square, London W1V 5FA. Cable: Anglemi London W1; Tel. 01-437-0444.

UNDP Asks For Bids On Development Plans

The United Nations Development Program (UNDP) recently announced contract opportunities available for international bidding concerning economic development projects for low-income countries. UNDP contracts are awarded on an international competitive basis; interested firms should contact the appropriate executing agency directly.

The name and address of the executing agency responsible for each project is listed at the end of the project. The maximum allowable cost of each project is listed in parantheses.

VIETNAM — Education — RVN/73/003 — Global assistance to agricultural and rural education. Anticipated subcontract work requirements: Bibliography of pedagogy and methodology of agricultural education. ($5,000). Expected to begin August. Executing agency: United Nations Educational, Scientific and Cultural Organization (UNESCO), Place de Fontenoy, Paris Vlle., France.

REGIONAL — Health — RAF/74/004 — Orchocerciasis control program in the Volta River Basin Area. Anticipated subcontract work requirements: Search for and development of new drugs with special emphasis on their hospital and field evaluation in the program area. ($301,200). Expected to begin October. Executing Agency: World Health Organization (WHO), Avenue Appia, 1211 Geneva 27, Switzerland.

Future Construction Abroad

MOZAMBIQUE — Luis Maria de Alcantara Santos, Technical Director, Mozambique Ports, Railways and Transport Administration (CFM), Lourenco Marques, announces **expansion of Antonio Enes fishing port facilities** (wharf, refrigerated warehouse, etc.). Technical specifications have been prepared and tenders should be announced soon. Estimated value is U.S.$1.2 million.

HONDURAS — IBRD has a three-man technical commission in Honduras working with the Comision Federal De Electricidad de Mexico to make independent study of the **El Cajon Hydroelectric Project.** The study will cover three aspects: feasibility of the project in general terms, the best time-table to implement it (e.g. in stages), and economic-financial considerations. IBRD will also make available recommendations of an expert in putting together financing packages (involving funds from international lenders, suppliers credits, EXIM, etc.). Assuming above examination proves favorable, Government of Honduras would hope to begin negotiations for necessary loans in late 1974. Bidding, adjudicating, etc. would be held in 1975; construction 1976-80; operations would begin in 1981. Estimated project cost is about $300 million. Interested U.S. engineering or construction firms contact ASAP Ing. Jose Dalmiro Caballero, Empresa Nacional de Energia Electrica (ENEE), Ap. Postal 99, Tegucigalpa. Tel: 22-8466. Telex: 1128 ENEE HT.

IRAQ—Jabir Hussain Daoud, Director General, Construction Materials Import Co., State Organization for Insurance Building, Cinema Khayyam St., Baghdad, (Cable: STOKI BAGHDAD) has urgent need to construct **at least 20 major warehouses** in various parts of Iraq. He requests U.S. firms in a position to analyze his organization's needs, recommend suitable warehouse system and provide turnkey installation to contact him ASAP, sending brochures outlining capabilities and previous experience with similar projects. His organization has a completely open mind on style or warehouses and materials to be used and is willing to be guided by recommendations of experienced, reputable contractors.

ARGENTINA—A project to build an **artificial island** in the shallow River Plate opposite Buenos Aires on which an **international airport** would be constructed, designed to replace Ezeiza International Airport as well as the Municipal airport Aeroparque, is showing signs of life. The basic airport island would be about 3.3 km. by 2 km. Consideration is being given to building one or two smaller islands for recreational and/or industrial purposes, such as a site for a nuclear power plant. Two possible sites have been considered, one about 5 km. offshore from northern Buenos Aires and the other adjacent to the southern portion of the city. The latter would not necessarily have to be an island, but could be simply a large land reclamation project. Total cost estimated at U.S.$1.4 billion. If approved, project will present a major opportunity for U.S. engineering consultant firms, construction firms, and airport equipment manufacturers. The first opportunity for U.S. companies would be a feasibility study. Under Argentine Government procurement regulations a consultant firm must either have been established as

an Argentine company for two years or be associated with an established Argentine company in order to be eligible for public contracts. The Argentine firm, Hydroceano Consultores, is interested in associating with an American firm in connection with this project. Contact Capt. Nestor Granelli at Hydroceano Consultores, Sarmiento 2544, 5° Piso, Buenos Aires. Tel: 47-9740.

PHILIPPINES—The following **two IBRD-financed road projects** may be of interest to U.S. firms: **Highways III**—A Norwegian/Danish firm, Norconsult, Hoff-Overgard, is concluding the feasibility study. At the present time, it appears that about 400 kms. of roads will be financed. Engineering design work will be undertaken by the Bureau of Public Highways, but a general consultant may be required. Design work will be initiated this month and a call for prequalification issued in late 1974. **Highway IV**—Norconsult, Hoff-Overgard, is also undertaking this feasibility study. A Bureau of Public Highways source estimates that about 600 kms. of roads will be financed and constructed under this program. Outside assistance for engineering/design work will probably be required, with contracts let early next year. Call for prequalification is expected around mid-1975. The implementing agency for Highways III and IV is: Bureau of Public Highways, 2nd St., Port Area, Manila.

IRAQ—The Ministry of Works and Housing is in the early stage of preparing a plan to provide **135,000 single family dwellings** (mix of two- and three-bedroom apartments and detached houses) **per year for the next 20 years.** Preliminary planning envisages mix of four-story apartment buildings (without elevators) and eight-story apartment buildings (with elevators) in various urban centers. Ministry plans two factories to produce concrete prefabricated housing material, one in Baghdad capable of producing materials required for 3.000 dwellings per year and one in Basra (2,000 flats per year). Ministry has received approval to call for international bids on eight more such prefab factories, with an average capacity to support construction of 3,000 apartments per year. The apartments are in two styles and sizes—two-bedroom (100 sq. meters) and three-bedroom (125 sq. meters). Consultants would be expected to make recommendations about construction based on maximum use of abundant Iraqi building materials (cement, brick) and to design a program in training Iraqi builders and contractors. Interested U.S. firms should send ASAP brochures describing design and/or planning capabilities and identifying similar projects on which they have worked. Similarly, manufacturers of prefab and modular housing and materials as well as suppliers of sanitary ware and firms with ability to erect turnkey factories for prefab material should also make themselves known at once to: Director General of Housing, Ministry of Works and Housing, Baghdad, Iraq.

HAITI—Directeur General, Administration Portuaire de Port-au-Prince, invites contractors to prequalify to bid for construction of **port facilities** in Port-au-Prince. The project consists of constructing a new two-berth wharf, and other related works, in an area north of and generally parallel to the existing pier in the harbor at Port-au-Prince and will include following major items: gravel fill dikes (approx. 2,600 linear ft.) dredging and hydraulic fill (approx. 690,000 cu. yds.) the latter utilizing a dredge owned by the Administration Portuaire de Port-au-Prince (A.P.P.); prestressed pile-supported two-berth reinforced concrete wharf (approx. 260,000 sq. ft.); two cargo storage warehouses (transit sheds), totaling approx. 168,000 sq. ft.; port administration building, supported on piles (approx. 10,000 sq. ft. of floor area); miscellaneous construction items, including paving, water service, sewer lines, electrical facilities, fencing, and sanitary and incidental facilities. Bids will be received only from contractors who submit duly executed qualification documents and whose prior experience, financial situation, availability of required equipment and key personnel are commensurate with the work to be performed and which have been considered satisfactory and selected by the ad-hoc committee of the A.P.P. Prequalification questionnaires and related documents available at no charge from the Directeur General, Administration Portuaire de Port-au-Prince, Boite Postale 616, Port-au-Prince, Haiti, W.I., and at the Inter-American Development Bank, 808 17th St. N.W., Washington, D.C. 20433, and at main Embassies and Consulates of Haiti. Construction will be financed by a loan from Inter-American Development Bank with counter-part funds of the Government of Haiti. Prequalification deadline is July 26 at A.P.P. About Sept. 2, A.P.P. expects to invite selected contractors to submit bids within a 60-day period. Construction period will be a maximum of 24 months after date of contract. A bid bond or guaranty of 5 percent total amount of the bid will be required.

SPAIN—Luis Montemayor, Director, Urban Transportation at Municipality of Seville, announces plans for **Seville subway project.** Study of the project, prepared by Engineer Aponte, under Direccion General de Transportes Terrestres, Ministry of Public Works, Madrid, will be presented for consideration to the Seville City Council shortly. It then has to be approved by the Spanish Council of Ministers. Cost of the first phase estimated at $41.5 million, of which the Central Government would contribute 40 percent and the Municipality of Seville 60 percent. Municipality of Seville is entity to which offers would be tendered. If the project is endorsed by the government, an experimental stage could be commenced late this year at an estimated initial cost of $1.5 million. For actual construction, bids would be accepted only from Spanish firms. However, mechanical and electronic phases would be open to international companies or Spanish firms associated with foreign companies.

HONDURAS—The following **two highway projects** in Honduras should be of interest to construction firms: **Olanchito-El Porvenir Highway:** Louis Berger Inc., in association with two local firms, signed contract with the Government of Honduras to prepare feasibility studies and final design of this highway linking the Aguan Valley with the North Coast. Length, including about 30 bridges, will be some 80 kilometers. The study, which will cost about $500,000, is being financed by IDB and is to be completed in about 8 months with bidding and construction probably not before 1976. **El Progreso-Yoro Highway:** IDB financed feasibility and technical studies which have been completed by a Honduran company called Coceco (Frente Iglesia La Guadalupe, Tegucigalpa) on this 144-kilometer road running El Progreso—El Negrito—Morazan—Yoro with an offshoot to Santa Rita—La Barco connecting with the Northern Highway. The Government of Honduras has applied to IDB for a construction loan (around $16 million). Loan approval is expected during the second half of 1974 with prequalification and bidding in 1975 and beginning of construction in 1976. Interested highway construction firms should make their interest known to the Inter-American Development Bank office in Tegucigalpa (Ing. Arturo Pino Navarro, Representative) and the Government of Honduras officer responsible: Ing. Ramiro Zuniga Figueroa, Direccion General de Caminos, Ministerio de Communicaciones, Obras Publicas, Y Transporte, Barrio La Bolsa, Comayaguela, D.C., Honduras. Ing. Arturo Pino Navarro, Banco Interamericano de Desarrollo, Edificio Midence Soto, 80. PISO. Tegucigalpa, D.C., Honduras.

BELGIUM—The City of Antwerp is building an extensive metro network, parts of which will be operational by the end of 1974. The city is now studying the feasibility of constructing **large parking facilities** near the metro terminals and has requested assistance of the American Consulate General in Antwerp in obtaining appropriate literature or materials describing how such facilities are built and operated in the U.S. Interested U.S. firms send information and materials to the American Consulate General, 64-68 Frankrijklei, Antwerp 2000, APO New York 09667.

NORWAY—Norsk Hydro A/S is considering closing its ammonia plant at Glomfjord in northern Norway and building an **aluminum plant** there with initial capacity of 30,000 tons and eventual capacity of 180,000 tons. The company is also considering a magnesium plant at Sorfold, also in northern Norway. These investments will be subject to government approval. Contact: Norsk Hydro A/S, Bygdoy Alle 2, Oslo 2.

HONG KONG—Henry Fok, Managing Director, Shun Tak Enterprise, is planning to build a **40-story building** which will have a helipad and docking facilities for hydrofoil ferries. Mr. Fok hopes to have three helicopters initially. Estimated cost is about U.S.$60 million. Work is to begin in 1977 (if government approval is granted) and be completed in 1980. This project may offer many opportunities for U.S. consultants, construction engineers, and suppliers of helicopters. Interested U.S. firms should communicate with Henry Fok, Shun Tak Enterprises Corp., Ltd., Connaught Center, Hong Kong. Tele: 5-243176.

TURKEY—Nuclear Power Plant Project involves **consulting engineering** and **construction of a 600 MW capacity plant** located near the Marmara Sea. Cost will be over $200 million (80 percent in foreign exchange) including consulting engineering cost of approx. $18 million. Turkish Electric Authority (TEK), with the foreign consulting engineering group, will determine tender procedures and type of reactor to install. Equipment supply specifications should be available by the end of 1974. TEK may be ready to contract by end of 1975. Equipment will include: reactor, turbine generators, transformers, circuit brakers, switch gears, control instruments, etc. Financing has not yet been arranged. Firms submitting bids will be asked to include credit proposals. Contact: Ahmet Kutukcuoglu, Head of Nuclear Energy Dept., Turkiye Elektrik Kurumu Genel Mudurlugu, Nukleer Enerji Daire Baskanligi, Gozlukcu Han, Kat 8, Necatibey Caddesi 20, Yenisehir, Ankara. Tele: 18 89 47.

VIETNAM—Kuljian Corporation of Philadelphia, Pa. has submitted a feasibility report on Saigon Thermal Power Station and associated transmission system to the Vietnam Power Co. (VPC), Saigon. The report recommends construction of a **coal-fired thermal power station** consisting of two 150 MW units to be built at the outskirts of Saigon, with the first going on stream in June 1978 and second in January 1980. Total power plant investment will be $93.7 million, $65.3 million in foreign currency.

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